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NEWS	15	MAR 31	CAS REGISTRY enhanced with additional experimental spectra
NEWS	16	MAR 31	CA/CAPLUS and CASREACT patent number format for U.S. applications updated
NEWS	17	MAR 31	LPICI now available as a replacement to LDPCI
NEWS	18	MAR 31	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
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NEWS	22	APR 28	IMSRSEARCH reloaded with enhancements
NEWS	23	MAY 30	INPAFAMDB now available on STN for patent family searching
NEWS	24	MAY 30	DGENE, PCTGEN, and USGENE enhanced with new homology sequence search option
NEWS	25	JUN 06	EPFULL enhanced with 260,000 English abstracts
NEWS	26	JUN 06	KOREAPAT updated with 41,000 documents
NEWS	27	JUN 13	USPATFULL and USPAT2 updated with 11-character patent numbers for U.S. applications
NEWS	28	JUN 19	CAS REGISTRY includes selected substances from web-based collections
NEWS	29	JUN 25	CA/CAPLUS and USPAT databases updated with IPC

reclassification data  
 NEWS 30 JUN 30 AEROSPACE enhanced with more than 1 million U.S.  
 patent records  
 NEWS 31 JUN 30 EMBASE, EMBAL, and LEMBASE updated with additional  
 options to display authors and affiliated  
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 NEWS 32 JUN 30 STN on the Web enhanced with new STN AnaVist  
 Assistant and BLAST plug-in  
 NEWS 33 JUN 30 STN AnaVist enhanced with database content from EPFULL  
 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,  
 AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.  
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	ENTRY	SESSION
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FILE COVERS 1907 - 8 Jul 2008 VOL 149 ISS 2

FILE LAST UPDATED: 7 Jul 2008 (20080707/ED)

Caplus now includes complete International Patent Classification (IPC)  
 reclassification data for the second quarter of 2008.

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```
=> s (prepare or make) (L) (fatty (3w) acid (3w) ester (3w) pentacerythritol)
    11573 PREPARE
    2056 PREPARES
    13583 PREPARE
        (PREPARE OR PREPARES)
    139529 PREP
    2406 PREPS
    141710 PREP
        (PREP OR PREPS)
    153754 PREPARE
        (PREPARE OR PREP)
    291703 MAKE
    227489 MAKES
    502466 MAKE
        (MAKE OR MAKES)
    404815 FATTY
    14 FATTIES
    404819 FATTY
        (FATTY OR FATTIES)
    4622237 ACID
    1639193 ACIDS
    5136715 ACID
        (ACID OR ACIDS)
    623048 ESTER
    457645 ESTERS
    864695 ESTER
        (ESTER OR ESTERS)
    1 PENTACERYTHRITOL
L1    0 (PREPARE OR MAKE) (L) (FATTY (3W) ACID (3W) ESTER (3W) PENTACERY
      THRITOL)

=> s (pentaerythrityl (5w) ester)
    933 PENTAERYTHRITYL
    623048 ESTER
    457645 ESTERS
    864695 ESTER
        (ESTER OR ESTERS)
L2    38 (PENTAERYTHRITYL (5W) ESTER)

=> s 12 and prepare
    11573 PREPARE
    2056 PREPARES
    13583 PREPARE
        (PREPARE OR PREPARES)
    139529 PREP
    2406 PREPS
    141710 PREP
        (PREP OR PREPS)
    153754 PREPARE
        (PREPARE OR PREP)
L3    0 L2 AND PREPARE
```

=> s 12 and process  
2642542 PROCESS  
1805847 PROCESSES  
3941649 PROCESS

(PROCESS OR PROCESSES)

L4 2 L2 AND PROCESS

=> d 14 1-2 ibib abs

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1961:30530 CAPLUS  
DOCUMENT NUMBER: 55:30530  
ORIGINAL REFERENCE NO.: 55:5994g-h  
TITLE: Yellowing of oil films  
AUTHOR(S): Privett, O. S.; Blank, M. L.; Covell, J. B.; Lundberg, W. O.  
CORPORATE SOURCE: Univ. of Minnesota, Austin  
SOURCE: Journal of the American Oil Chemists' Society (1961), 38, 22-7  
CODEN: JAOCA7; ISSN: 0003-021X  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

AB The effect of various factors on yellowing of films of Me linolenate, Me linoleate, linolenyl alc., octadecatriene, pentaerythritol tetralinoleate, linseed oil Me esters, Me cis-9,trans-11-linoleate, and Me docosa-hexaenae concentrate was studied by means of peroxide value, aldehydes, and infrared and ultraviolet spectra. Yellowing appears to be a side reaction unrelated to the drying process, but colorless precursors of the yellow compds. are formed as a result of an oxidative process. The formation of the yellow compound was postulated as taking place by the interaction of the colorless precursors in some type of condensation. Low-mol.-weight aldehydes prevented yellowing, possibly by acting as substitutes for some reactant in the condensation reaction.

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1950:4380 CAPLUS  
DOCUMENT NUMBER: 44:4380  
ORIGINAL REFERENCE NO.: 44:852h-i,853a  
TITLE: Application of pentaerythrityl ester of rosin  
AUTHOR(S): Shkol'man, E. E.; Morozov, I. R.  
SOURCE: Zhurnal Prikladnoi Khimii (Sankt-Peterburg, Russian Federation) (1949), 22, 894-901  
CODEN: ZPKHAB; ISSN: 0044-4618  
DOCUMENT TYPE: Journal  
LANGUAGE: Unavailable

AB cf. C.A. 43, 2788b. Esterification of rosin by pentaerythritol is best conducted under the conditions of glycol formation from rosin and glycol; the exptl. batches were prepared by batch process without catalysts at 280-90°, as higher temps. give dark products with high acid number. The product is higher m. and more elastic than the corresponding glycol derivative and can be used in lacquer formulations; cold-drying lacquers may also include tung oil. The properties of the lacquers and enamels containing the product are superior to those containing the glycol derivative in hardness and elasticity. The product is suitable for nitrocellulose coatings.

```
=> s pentaerythrityl (4w) eicosanoate
    933 PENTAERYTHRITYL
    286 EICOSANOATE
      8 EICOSANOATES
    293 EICOSANOATE
      (EICOSANOATE OR EICOSANOATES)
L5      0 PENTAERYTHRITYL (4W) EICOSANOATE

=> s pentaerythrityl (3w) hexadecanoate
    933 PENTAERYTHRITYL
    1458 HEXADECANOATE
      15 HEXADECANOATES
    1468 HEXADECANOATE
      (HEXADECANOATE OR HEXADECANOATES)
L6      0 PENTAERYTHRITYL (3W) HEXADECANOATE

=> s pentaerythritol
    29292 PENTAERYTHRITOL
      134 PENTAERYTHRITOLS
L7      29307 PENTAERYTHRITOL
      (PENTAERYTHRITOL OR PENTAERYTHRITOLS)

=> s l7 and esterification
    104215 ESTERIFICATION
      593 ESTERIFICATIONS
    104367 ESTERIFICATION
      (ESTERIFICATION OR ESTERIFICATIONS)
L8      1339 L7 AND ESTERIFICATION

=> s l8 and (fatty (3w) acid)
    404815 FATTY
      14 FATTIES
    404819 FATTY
      (FATTY OR FATTIES)
    4622237 ACID
    1639193 ACIDS
    5136715 ACID
      (ACID OR ACIDS)
    358997 FATTY (3W) ACID
L9      378 L8 AND (FATTY (3W) ACID)

=> s l9 and (cosmetic# or skin)
    91083 COSMETIC#
    282302 SKIN
    11102 SKINS
    288522 SKIN
      (SKIN OR SKINS)
L10     17 L9 AND (COSMETIC# OR SKIN)

=> d l10 1-10 ibib abs

L10 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:      2008:124323 CAPLUS
DOCUMENT NUMBER:      148:198144
TITLE:      Esterification reaction product, gelling
```

agent containing the product, and cosmetic preparation containing them  
 INVENTOR(S): Mori, Haruki  
 PATENT ASSIGNEE(S): The Nisshin Oil Group, Ltd., Japan  
 SOURCE: PCT Int. Appl., 45pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008013106	A1	20080131	WO 2007-JP64319	20070720
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: JP 2006-206806 A 20060728  
 JP 2006-278686 A 20061012

AB Disclosed is an esterification reaction product which is capable of gelling both an oil agent and a cyclic silicone or a volatile dimethylpolysiloxane, or both an oil agent and a nonvolatile dimethylpolysiloxane. Also disclosed are a gelling agent containing the esterification reaction product, and a cosmetic preparation containing the esterification reaction product or the gelling product and having an excellent feeling of use. Specifically, the cosmetic preparation contains, as a gelling agent, an esterification reaction product which is obtained by esterifying a component A that is a polyhydric alc. or a condensate thereof, a component B that is a saturated dibasic acid having 10-28 carbon atoms, a component C that is a linear saturated fatty acid having 16-28 carbon atoms, and a component D that is a branched saturated fatty acid having 8-28 carbon atoms at a blending ratio (component A : component B) of 1.0 mol : 0.10-0.20 mol. For example, glycerin 92 g, eicosanedioic acid 55 g, behenic acid 680 g, methyl-branched isostearic acid 173 g were stirred at 180-210° for esterification with a catalyst p-toluenesulfonic acid and the product was used in formulating cosmetics as a gelation agent.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2008 ACS ON STN  
 ACCESSION NUMBER: 2007:1173391 CAPLUS  
 DOCUMENT NUMBER: 147:454756  
 TITLE: Oily cosmetic compositions containing fructooligosaccharide fatty acid esters, oils, and acrylic-silicones  
 INVENTOR(S): Miyagawa, Satsuki; Imai, Masatoshi

PATENT ASSIGNEE(S): Kosei Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 21pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

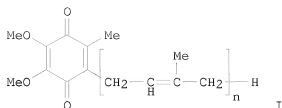
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007269691	A	20071018	JP 2006-96996	20060331
PRIORITY APPLN. INFO.:			JP 2006-96996	20060331

AB The invention relates to an oily cosmetic composition which forms uniform, shiny, and stable gel and provides light feeling on the skin, wherein the composition is characterized by containing (1) a fructooligosaccharide fatty acid ester having an average sugar polymerization degree  $\geq 10$  and esterification degree per monosaccharide unit  $\geq 2.2$ , (2) a liquid oil except a silicone oil, (3) a long-chain alkyl group-containing acrylic-silicone graft copolymer. An oily cosmetic composition further containing solid oil is also disclosed. For example, inulin stearate was prepared from Rafitilin HP and stearyl chloride. The inulin stearate 5 parts was combined with ethylene-propylene copolymer (EPS Wax) 5, candelilla wax (NC-1630) 5, vaseline 10, macadamianut oil 10, propylene glycol dicaprate 15, cetyl-2-ethylhexanoate 16.4, dimethylpolysiloxane (KF-96A-20cs) 5, phenyltrimethicone (KF-56) 5, stearyl-modified acryl-silicone graft copolymer (KP-561P) 5, Japan red 201 1, Japan red 202 3, Japan yellow 4 aluminum lake 3, titanium oxide 1, black iron oxide 0.5, iron oxide-coated titanium mica 10, and fragrance 0.1 parts to make a lipstick composition

L10 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:376878 CAPLUS  
 DOCUMENT NUMBER: 146:386367  
 TITLE: Storage-stable oily cosmetic compositions containing coenzyme Q  
 INVENTOR(S): Kachi, Hisanori; Matsuzawa, Makoto  
 PATENT ASSIGNEE(S): Nisshin Oillio Group, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 14pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007084505	A	20070405	JP 2005-277790	20050926
PRIORITY APPLN. INFO.:			JP 2005-277790	20050926

OTHER SOURCE(S): MARPAT 146:386367  
 GI



AB The cosmetic compns. contain coenzyme Q (I; n = 1-12), medium-chain fatty acid esters prepared by esterification of C6-12 medium-chain fatty acids with branched polyols, and do not contain H<sub>2</sub>O. An oily composition containing 0.03 weight% coenzyme Q10 and 99.97 weight% Estemol N-01 (neopentyl glycol didecanoate) showed no odor or discoloration after 1-mo storage at 50° and good skin compatibility and skin elasticity-improving and antiaging effect.

L10 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1005239 CAPLUS

DOCUMENT NUMBER: 145:362886

TITLE: Gel compositions containing volatile organopolysiloxanes and fructooligosaccharide fatty acid esters, and cosmetics containing the same

INVENTOR(S): Miyagawa, Satsuki; Imai, Masatoshi

PATENT ASSIGNEE(S): Kosei Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 25pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006256978	A	20060928	JP 2005-73415	20050315
PRIORITY APPLN. INFO.:			JP 2005-73415	20050315

AB The invention provides a gel composition for use in a cosmetic composition, characterized by containing a volatile organopolysiloxane (Me<sub>3</sub>SiO)3SiMe, and a fructooligosaccharide fatty acid ester having esterification degree ≥ 2.2, especially inulin or hydrogenated inulin fatty acid ester. The composition has excellent skin attachability without causing stickiness. The composition may further contain acryl-silicone graft copolymer or trimethylsiloxysilicate. For example, a W/O liquid foundation composition containing (Me<sub>3</sub>SiO)3SiMe 5, dimethylpolysiloxane 8, pentaerythritol rosinate 2, di-2-ethylhexyl succinate 5, cetyl -2-Et hexanoate 8, inulin stearate 2, a modified silicone (KF-6105) 2, an acryl-silicone graft copolymer/decamethylcyclopentasiloxane (KP-545) 8, silicone-treated pigments 14, 1,3-butylene glycol 7, ethanol 5, preservative/fragrance q.s., and water balance to 100 % was formulated.



L10 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2006:74902 CAPLUS  
 DOCUMENT NUMBER: 144:156196  
 TITLE: High gloss, non-feathering lip product comprising a polysaccharide and a polyol ester  
 INVENTOR(S): Luo, Dexin; Wang, Tian Xiang; Palo, Arlette; Culhane, David Walter; Castro, Michael A.; Mercado, Clara G.; Frischberg, Paula R.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 6 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060019848	A1	20060126	US 2005-178824	20050711
AU 2005271921	A1	20060216	AU 2005-271921	20050711
CA 2573802	A1	20060216	CA 2005-2573802	20050711
WO 2006017203	A1	20060216	WO 2005-US24416	20050711
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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EP 1768642	A1	20070404	EP 2005-770892	20050711
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JP 2008505968	T	20080228	JP 2007-521524	20050711
KR 2007035073	A	20070329	KR 2007-703302	20070212
PRIORITY APPLN. INFO.: US 2004-587209P P 20040712 WO 2005-US24416 W 20050711				
AB The invention relates to a high gloss, non-feathering topical composition comprising (i) at least one water-insol., fatty alc.-soluble polysaccharide polymer selected from starches, glycogens, glycolates, dextrans, and celluloses, and (ii) a liquid polymeric polyol ester, i.e., a reaction product of the esterification of a C12-20 polyol, a C4-30 monocarboxylic acid and a C2-36 dicarboxylic acid.				

L10 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:515310 CAPLUS  
 DOCUMENT NUMBER: 141:76379  
 TITLE: Lanolin-free cosmetic compositions containing an aromatic ester of a hydroxy fatty acid  
 INVENTOR(S): Filippi, Vanina; Salem, Sophie; Auguste, Frederic  
 PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: Fr. Demande, 24 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2848823	A1	20040625	FR 2002-16533	20021223
FR 2848823	B1	20050506		
EP 1433458	A1	20040630	EP 2003-293094	20031210
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JP 2004203885	A	20040722	JP 2003-425849	20031222
US 20040166130	A1	20040826	US 2003-743084	20031223
PRIORITY APPLN. INFO.:			FR 2002-16533	A 20021223
			US 2003-438772P	P 20030109

OTHER SOURCE(S): MARPAT 141:76379

AB A cosmetic makeup composition free from lanolin or its derivs. contains at least a liquid ester resulting from the esterification of an aromatic acid with a hydroxy fatty acid. This composition makes it possible to give a shining deposit on keratins. The aliphatic hydroxy compound is a hydroxy fatty acid such as ricinoleic acid or hydroxystearic acid. The composition contains a pasty compound having a hardness at 25° ranging 0.001-0.5 MPa, preferably 0.002-0.4 MPa, and whose liquid fraction at 23° lies between 9 and 97% in weight. Thus, a rouge formulation contained Finsolv BCO 22, Elfacos ST9 11, 2-decyltetradecanoic acid triglyceride 20, hydrogenated polyisobutene 10, diisostearyl malate 11, polybutylene 2.5, octacosanyl stearate 5, triglyceride mixture from lauric, myristic, palmitic, and stearic acids 2, polyethylene wax 5, and modified Hectorite 3%, pigments and preservatives and perfume qs.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:859415 CAPLUS

DOCUMENT NUMBER: 139:339267

TITLE: Processes for transesterification, esterification, interesterification by dielectric heating

INVENTOR(S): Charlier De Chily, Pierre; Raynard, Mikaele

PATENT ASSIGNEE(S): Satie Sa, Fr.

SOURCE: Fr. Demande, 39 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2839069	A1	20031031	FR 2002-5396	20020425
FR 2839069	B1	20060407		
WO 2003090669	A2	20031106	WO 2003-FR1307	20030424
WO 2003090669	A3	20040401		

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003262827 A1 20031110 AU 2003-262827 20030424

EP 1501783 A2 20050202 EP 2003-740664 20030424

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

PRIORITY APPLN. INFO.: FR 2002-5396 A 20020425

WO 2003-FR1307 W 20030424

AB These processes not only make it possible to decrease the reaction times, compared with the traditional processes, and they also lead to esters with remarkable physicochem. characteristics: these processes make it possible to significantly reduce the acid value and the peroxide index of the mixture. This present invention consists in manufacturing by dielec. heating (microwaves and high frequencies) of polyols partially or completely esterified starting from a mixture of (A) vegetable or animal oils or fats, fatty acids, fatty acid esters, hydrocarbons or derivs. of these latter and compds. and (B) compds. containing or generating OH groups, like glycerol, polyglycerols, polyalkylene glycols polyvinyl alcs., sugars, and sterols. The heat treatment is carried out by dielec. heating, preferably in an atmospheric deprived of oxygen.

The frequencies of the electromagnetic waves vary from 3 Mhz to 30 GHz. The esters find multiple applications: the esters of polymeric alcs. are for example the surfactants used in cosmetics or in foods.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:673306 CAPLUS

DOCUMENT NUMBER: 135:231515

TITLE: Aqueous gelation agents containing esters of polyhydric alcohols with fatty acids

INVENTOR(S): Santou, Yoshihito; Oyama, Keiichi; Tsuchiya, Takeshi

PATENT ASSIGNEE(S): Nisshin Oil Mills Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001247843	A	20010914	JP 2000-59559	20000303
PRIORITY APPLN. INFO.:			JP 2000-59559	20000303

AB This invention relates to aqueous gelation agents comprising esterification products of pentaerythritol (or its condensates), glycerin condensates, C26-30 aliphatic saturated dibasic acids, and

C8-28 fatty acids. The gelation agents provide stable gels with pseudoplastic properties in acidic, basic, and alc. compns. for cosmetic, pharmaceutical, and industrial uses. For example, a mixture containing dipentaerythritol 17.8 g, decaglycerin 116 g, octacosanedioic acid 47.6 g, and stearic acid 59.3 g was reacted in the presence of p-toluenesulfonic acid for 6 h at 180-220° for esterification. The product was tested for gelation capabilities in different environments.

L10 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:673305 CAPLUS  
DOCUMENT NUMBER: 135:231514  
TITLE: Aqueous gelation agents containing esters of polyhydric alcohols with fatty acids  
INVENTOR(S): Yamafuji, Yoshinobu; Oyama, Keiichi; Tsuchiya, Takeshi  
PATENT ASSIGNEE(S): Nisshin Oil Mills Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001247842	A	20010914	JP 2000-59558	20000303
PRIORITY APPLN. INFO.:			JP 2000-59558	20000303

AB This invention relates to aqueous gelation agents comprising esterification products of pentaerythritol (or its condensates), glycerin condensates, C6-24 aliphatic saturated dibasic acids, and

C8-28 fatty acids. The gelation agents provide stable gels with thixotropic properties in acidic, basic, and alc. compns. for cosmetic, pharmaceutical, and industrial uses. For example, a mixture containing dipentaerythritol 17.8 g, decaglycerin 116 g, eicosanedioic acid 47.6 g, and stearic acid 59.3 g was reacted in the presence of p-toluenesulfonic acid for 6 h at 180-220° for esterification. The product was tested for gelation capabilities in different environments.

L10 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:811554 CAPLUS  
DOCUMENT NUMBER: 132:40345  
TITLE: Glyceride mixtures for cosmetic emulsions  
INVENTOR(S): Le Hen Ferrenbach, Catherine  
PATENT ASSIGNEE(S): Henkel K.-G.a.A., Germany; Sidobre-Sinnova S.A.  
SOURCE: Ger. Offen., 10 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19827662	A1	19991223	DE 1998-19827662	19980622

WO 9966884 A1 19991229 WO 1999-EP4065 19990612  
 W: JP, US  
 RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE  
 EP 1098625 A1 20010516 EP 1999-931062 19990612  
 R: DE, ES, FR, IT  
 JP 2002518421 T 20020625 JP 2000-555570 19990612  
 DE 1998-19827662 A 19980622  
 WO 1999-EP4065 W 19990612  
 PRIORITY APPLN. INFO.:  
 AB The use of di/triglyceride mixts. for the preparation of removal agents in  
 cosmetic emulsions is described. These glycerides can be obtained  
 by the esterification of plant oils with a mixture of glycerin and  
 C6-10 fatty acids. Oily substances confer  
 skin compatibility to the cosmetic formulations. Thus,  
 a lotion contained polyglyceryl diisostearate 1.0, polyglyceryl  
 dipolyhydroxystearate 3.0, zinc stearate 1.5, coco glycerides 20.0, EtOH  
 10.0, and glycerin 5.0, and water to 100%..

=> d 110 11-17 ibib abs

L10 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1998:250735 CAPLUS  
 DOCUMENT NUMBER: 128:258697  
 ORIGINAL REFERENCE NO.: 128:51193a,51196a  
 TITLE: Highly branched complex meadowfoam esters useful as  
 cosmetic lubricants with improved liquidity  
 and good emollient properties to skin  
 INVENTOR(S): O'Lenick, Anthony J., Jr.  
 PATENT ASSIGNEE(S): Fan Tech Ltd., USA  
 SOURCE: U.S., 4 pp., Cont.-in-part of U.S. 5,646,321.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 16  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5741919	A	19980421	US 1996-773735	19961226
US 5646321	A	19970708	US 1995-516138	19950817
PRIORITY APPLN. INFO.:			US 1995-516138	A2 19950817
OTHER SOURCE(S):	MARPAT	128:258697		

AB The esters are prepared by reaction of meadowfoam oil, meadowfoam  
 fatty acid or Me meadowfoamate with polyhydroxy compds.  
 such as pentaerythritol. Thus, 354 g meadowfoam oil was heated  
 with 34.0 g pentaerythritol in the presence of 0.1% stannous  
 oxylate catalyst, and water was stripped off to give a clear liquid  
 REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1996:609867 CAPLUS  
 DOCUMENT NUMBER: 125:230200  
 ORIGINAL REFERENCE NO.: 125:42865a,42868a  
 TITLE: Preparation of esters of pentaerythritol or  
 trimethylolpropane as an ultraviolet light absorbent

INVENTOR(S): Takada, Sadaki; Nakane, Toshihiko; Tsuchiya, Tsuyoshi;  
Nishida, Yutaka  
PATENT ASSIGNEE(S): Shiseido Co., Ltd., Japan; Nisshin Oil Mills Ltd.  
SOURCE: Eur. Pat. Appl., 14 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 728470	A2	19960828	EP 1996-102617	19960221
EP 728470	A3	19961204		
EP 728470	B1	20011031		
R: DE, FR, GB, IT				
JP 08225425	A	19960903	JP 1995-56500	19950221
JP 3485376	B2	20040113		
JP 08225426	A	19960903	JP 1995-56501	19950221
JP 3485377	B2	20040113		
PRIORITY APPLN. INFO.:			JP 1995-56500	A 19950221
			JP 1995-56501	A 19950221

OTHER SOURCE(S): MARPAT 125:230200

AB An UV light absorbent comprising an ester mixture derived from esterification of pentaerythritol or trimethylolpropane and a saturated branched-chain C8-18-fatty acid and o- or p-methoxycinnamic acid in a specific ratio. The UV light absorbent with prescribed UV light absorbing power has a moderate viscosity and can be handled and worked without inconvenience and/or difficulty. Esters obtained by esterification reaction of 111.9 g pentaerythritol, 73.2 g p-methoxycinnamic acid, and 414.9 g 2-ethylhexanoic acid had a viscosity of 302 cP and the maximum absorbance was 0.17 at  $\lambda_{\max}$  of 312 nm when the UV light absorption spectrum was measured using a 10 ppm ethanol solution

L10 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:517313 CAPLUS  
DOCUMENT NUMBER: 121:117313  
ORIGINAL REFERENCE NO.: 121:21017a,21020a  
TITLE: Cosmetics containing nonionic amphoteric compounds and silicones  
INVENTOR(S): Ochiai, Tatsushi; Yahagi, Kazuyuki  
PATENT ASSIGNEE(S): Kao Corp, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06048916	A	19940222	JP 1992-203811	19920730
JP 2946145	B2	19990906		
PRIORITY APPLN. INFO.:			JP 1992-203811	19920730
AB Skin and hair cosmetics contain nonionic amphoteric compds., having $\geq 1$ long-chain branched alkyl or alkenyl and				

≥3 OH groups, and showing lamellar liquid crystal structures at 25° and ≥50° and silicones chosen from di-Me polysiloxane, Me Ph polysiloxane, amino-modified silicone, fatty acid-modified polysiloxane, alc.-modified silicone, aliphatic alc.-modified polysiloxane, polyether-modified silicone, epoxy-modified silicone, F-modified silicone, cyclosilicone, and alkyl-modified silicone. Isostearyl glycidyl ether was added dropwise to a mixture containing pentaerythritol, DMSO, and NaOH within 1 h to give 30% pentaerythritol-isostearyl glycidyl ether (1 mol) adduct. A hair oil containing the compound 70.0, di-Me polysiloxane 20.0, and iso-Pr palmitate 10.0 weight% was stable at 40° for 3 mo.

L10 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:476237 CAPLUS

DOCUMENT NUMBER: 117:76237

ORIGINAL REFERENCE NO.: 117:13235a,13238a

TITLE: Preparation of methyl-branched fatty

acid pentaerythritol esters as

moisturizers and cosmetics containing them

Takada, Hiroshi; Yahagi, Kazuyuki; Tashiro, Kazuhiro

Kao K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04089450	A	19920323	JP 1990-203688	19900731
JP 2893128	B2	19990517		
PRIORITY APPLN. INFO.:			JP 1990-203688	19900731

OTHER SOURCE(S): MARPAT 117:76237

AB Cosmetics contain Me(CH<sub>2</sub>)mCHMe(CH<sub>2</sub>)nCO<sub>2</sub>CH<sub>2</sub>C(CH<sub>2</sub>OH)<sub>3</sub> (m, n = 0-20; m + n = 1-21). The esters have good moisturizing activity and form thermotropic liquid crystals at room temperature and the cosmetics are stable, smoothly applied to the skin, and tackiness-free. Pentaerythritol monoisostearate (prepared from Me isostearate and pentaerythritol) 3.0, stearyltrimethylammonium chloride 2.0, and H<sub>2</sub>O 95.0% were mixed to give a hair rinse.

L10 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:39512 CAPLUS

DOCUMENT NUMBER: 104:39512

ORIGINAL REFERENCE NO.: 104:6383a,6386a

TITLE: Composition useful in cosmetics and toiletries containing partial esters of tripentaerythritol

Nadolsky, Richard J.; Laryea, Joseph M.

PATENT ASSIGNEE(S): Miranol Chemical Co., Inc., USA

SOURCE: Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 151992	A2	19850821	EP 1985-100769	19850125
EP 151992	A3	19860716		
R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
JP 60178804	A	19850912	JP 1985-16358	19850130
PRIORITY APPLN. INFO.:			US 1984-574927	A 19840130
OTHER SOURCE(S): MARPAT 104:39512				

AB Partial esters of trientaerythritol [78-24-0] with C12-20 fatty acids are readily absorbed by the skin and provide a long-lasting emollient effect. Thus, to a blend of lauric/myristic acid in xylene, trientaerythritol was added in a mole ratio of 4:1 to obtain a soft solid product. A hand lotion containing 5.0% by weight of the above ester gave a persisting silky nongreasy feeling.

L10 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1978:122216 CAPLUS  
 DOCUMENT NUMBER: 88:122216  
 ORIGINAL REFERENCE NO.: 88:19205a,19208a  
 TITLE: Pentaerythritol derivatives  
 INVENTOR(S): Akimoto, Shinichi; Fujii, Masahiko; Suganaka, Akinori  
 PATENT ASSIGNEE(S): Nippon Oils & Fats Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 52151111	A	19771215	JP 1976-66097	19760608
JP 53018010	B	19780613		

PRIORITY APPLN. INFO.: JP 1976-66097 A 19760608

AB Pentaerythritol (I) derivs. were prepared by addition of 40-150 mol propylene oxide (II) and 4-60 mol ethylene oxide (III) to (HOCH<sub>2</sub>)<sub>3</sub>CCCH<sub>2</sub>O[CH<sub>2</sub>C(CH<sub>2</sub>OH)CH<sub>2</sub>O]<sub>n</sub>H (n = 0 or 1) in the presence of alkali catalysts at 100-180° followed by esterification of the terminal OH groups. The products were polyether fatty acid esters useful as lubricants, and antifoaming agents, and in cosmetics. Thus, 200 g II was added to a mixture of 68 g I and 10 g KOH over 5 h at 100° and 1-7 kg/cm<sup>2</sup>, the whole autoclaved 1 h, 440 g III added over 1 h, the whole autoclaved 1 h, neutralized with H<sub>3</sub>PO<sub>4</sub>, 10 g 4-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H and 210 g stearic acid were added, and the whole was esterified 12 h at 110-50° and 80 mm to give a product (IV) [9003-11-6] (OH value 26.1, saponification value 15.0, viscosity 380.7 cSt at 37.78°, acid value 0.7, APhA 40). IR and NMR spectra of the product are presented.

L10 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1960:36080 CAPLUS  
 DOCUMENT NUMBER: 54:36080  
 ORIGINAL REFERENCE NO.: 54:7080b-e  
 TITLE: Ointment bases  
 INVENTOR(S): Schluter, Werner  
 DOCUMENT TYPE: Patent



LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1014712		19570829	DE 1952-SC10597	19520925

AB The title products consist of large amts. of esters containing free OH groups, and small amts. of silicones. For the preparation of these esters, suitable acids are saturated and unsatd. acids containing 12-20 C atoms, e.g. lauric, myristic, palmitic, stearic, elaidic, palmitic, linoleic, or linolenic acids; suitable polyhydric alcs. include ethylene glycol, glycerol, erythritol, and pentaerythritol. The esters can be obtained either by ester interchange of the complete esters with polyhydric alcs. or by esterification of the fatty acids with the proper amount of polyhydric alcs. The mixts. may also contain complete esters, fatty alcs., e.g. hexadecyl, octadecyl, tetradecyl, dodecyl, or 9-octadecenyl alcs. and (or) waxy esters, e.g. tetradecyl or hexadecyl palmitates, and other ingredients conventionally used in the preparation of ointment bases for cosmetic or pharmaceutical purposes. Since such mixts. contain hydrophilic as well as lipophilic radicals, they may also contain H2O-soluble and oil-soluble active substances. Their pH can be alternatively adjusted from neutral to weakly acid. Because of their content of silicones combined with free OH groups, the products are highly viscous, resistant to rancidity, and leave a protective film on the skin that can easily be washed off with H2O. Thus, milling 50 parts of pentaerythritol tetralaurate and tetrapalmitate, 2 parts silicone, 1 part talc, and 150 parts H2O gives a smooth barrier cream. The mixed esters can be prepared either by esterification or ester interchange of the 2 acids or their triglycerides with the polyhydric alc. and subsequent mixing of the partial esters or by subjecting the mixture of the two acids or their triglycerides to the action of a polyhydric alc.

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(FILE 'HOME' ENTERED AT 16:21:03 ON 08 JUL 2008)

FILE 'CAPLUS' ENTERED AT 16:21:18 ON 08 JUL 2008

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L1      0 S (PREPARE OR MAKE) (L) (FATTY (3W) ACID (3W) ESTER (3W) PENTAC
L2      38 S (PENTAERYTHRITYL (5W) ESTER)
L3      0 S L2 AND PREPARE
L4      2 S L2 AND PROCESS
L5      0 S PENTAERYTHRITYL (4W) EICOSANOATE
L6      0 S PENTAERYTHRITYL (3W) HEXADECANOATE
L7      29307 S PENTAERYTHRITOL
L8      1339 S L7 AND ESTERIFICATION
L9      378 S L8 AND (FATTY (3W) ACID)
L10     17 S L9 AND (COSMETIC# OR SKIN)

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=> s l8 not silicone
      111879 SILICONE
      66324 SILICONES
      149791 SILICONE
          (SILICONE OR SILICONES)
L11     1320 L8 NOT SILICONE

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=> s l11 and (oil# or fat#)
    957722 OIL#
    320100 FAT#
L12      554 L11 AND (OIL# OR FAT#)

=> s l12 and preparation
    1618389 PREPARATION
    83283 PREPARATIONS
    1697136 PREPARATION
          (PREPARATION OR PREPARATIONS)
    2923365 PREPN
    214062 PREPNS
    3084371 PREPN
          (PREPN OR PREPNS)
    3970699 PREPARATION
          (PREPARATION OR PREPN)
L13      209 L12 AND PREPARATION

=> s l13 and monoester and diester and triester
    7826 MONOESTER
    6580 MONOESTERS
    12546 MONOESTER
          (MONOESTER OR MONOESTERS)
    16426 DIESTER
    13880 DIESTERS
    26027 DIESTER
          (DIESTER OR DIESTERS)
    2808 TRIESTER
    2414 TRIESTERS
    4652 TRIESTER
          (TRIESTER OR TRIESTERS)
L14      1 L13 AND MONOESTER AND DIESTER AND TRIESTER

=> d l14 ibib abs

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1944:24976 CAPLUS
DOCUMENT NUMBER: 38:24976
ORIGINAL REFERENCE NO.: 38:3636d-f
TITLE: The condensation of monobasic keto acids with
        poly-atomic alcohols
AUTHOR(S): Fedotova, O. Ya.
SOURCE: Zhurnal Khimicheskoi Promyshlennosti (1941), 18(No.
        3), 28-32
        From: Chem. Zentr. I, 947(1943).
        CODEN: ZHKPAD; ISSN: 0372-896X
        Journal
DOCUMENT TYPE: Unavailable
LANGUAGE: Unavailable
AB The reaction of 4-phenyl-2-benzoylbenzoic acid with glycol, glycerol and
    pentaerythritol occurs with liberation of H2O and is faster and
    more complete in an open vessel than under a reflux. It is best carried
    out at 210-20° for 1 hr., then at 180° for 6 hrs. The
    starting products are regenerated by hydrolysis of the resins which are
    formed, proving that the reaction is an esterification. The
    diester, m. 177-8°, can be isolated from the glycol resin,
    but the monoester cannot be crystallized The reaction with glycerol

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can lead to the formation of 2 mono- and 2 diesters and a triester. All 5 can occur together in amts. depending on the starting mixture. With pentaerythritol, equal amts. of reagents give the tetraester. Under the same conditions, only the CO<sub>2</sub>H group of trihydroxystearic acid reacts. The resulting resin forms with oils a very H<sub>2</sub>O-stable lacquer with a hardness of 200-50.

=> d hsi  
'HSI' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'

The following are valid formats:

ABS ----- GI and AB  
ALL ----- BIB, AB, IND, RE  
APPS ----- AI, PRAI  
BIB ----- AN, plus Bibliographic Data and PI table (default)  
CAN ----- List of CA abstract numbers without answer numbers  
CBIB ----- AN, plus Compressed Bibliographic Data  
CLASS ----- IPC, NCL, ECLA, FTERM  
DALL ----- ALL, delimited (end of each field identified)  
DMAX ----- MAX, delimited for post-processing  
FAM ----- AN, PI and PRAI in table, plus Patent Family data  
FBIB ----- AN, BIB, plus Patent FAM  
IND ----- Indexing data  
IPC ----- International Patent Classifications  
MAX ----- ALL, plus Patent FAM, RE  
PATS ----- PI, SO  
SAM ----- CC, SX, TI, ST, IT  
SCAN ----- CC, SX, TI, ST, IT (random display, no answer numbers;  
SCAN must be entered on the same line as the DISPLAY,  
e.g., D SCAN or DISPLAY SCAN)  
STD ----- BIB, CLASS  
  
IABS ----- ABS, indented with text labels  
IALL ----- ALL, indented with text labels  
IBIB ----- BIB, indented with text labels  
IMAX ----- MAX, indented with text labels  
ISTD ----- STD, indented with text labels  
  
OBIB ----- AN, plus Bibliographic Data (original)  
OIBIB ----- OBIB, indented with text labels  
  
SBIB ----- BIB, no citations  
SIBIB ----- IBIB, no citations  
  
HIT ----- Fields containing hit terms  
HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT)  
containing hit terms  
HITRN ----- HIT RN and its text modification  
HITSTR ----- HIT RN, its text modification, its CA index name, and  
its structure diagram  
HITSEQ ----- HIT RN, its text modification, its CA index name, its  
structure diagram, plus NTE and SEQ fields  
FHITSTR ----- First HIT RN, its text modification, its CA index name, and  
its structure diagram  
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its

structure diagram, plus NTE and SEQ fields  
 KWIC ----- Hit term plus 20 words on either side  
 OCC ----- Number of occurrence of hit term and field in which it occurs

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 ENTER DISPLAY FORMAT (BIB):ibib

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1944:24976 CAPLUS  
 DOCUMENT NUMBER: 38:24976  
 ORIGINAL REFERENCE NO.: 38:3636d-f  
 TITLE: The condensation of monobasic keto acids with  
 poly-atomic alcohols  
 AUTHOR(S): Fedotova, O. Ya.  
 SOURCE: Zhurnal Khimicheskoi Promyshlennosti (1941), 18(No.  
 3), 28-32  
 From: Chem. Zentr. I, 947(1943).  
 CODEN: ZHKPAD; ISSN: 0372-896X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable

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(FILE 'HOME' ENTERED AT 16:21:03 ON 08 JUL 2008)

FILE 'CAPLUS' ENTERED AT 16:21:18 ON 08 JUL 2008

L1 0 S (PREPARE OR MAKE) (L) (FATTY (3W) ACID (3W) ESTER (3W) PENTAC  
 L2 38 S (PENTAERYTHRITYL (5W) ESTER)  
 L3 0 S L2 AND PREPARE  
 L4 2 S L2 AND PROCESS  
 L5 0 S PENTAERYTHRITYL (4W) EICOSANOATE  
 L6 0 S PENTAERYTHRITYL (3W) HEXADECANOATE  
 L7 29307 S PENTAERYTHRITOL  
 L8 1339 S L7 AND ESTERIFICATION  
 L9 378 S L8 AND (FATTY (3W) ACID)  
 L10 17 S L9 AND (COSMETIC# OR SKIN)  
 L11 1320 S L8 NOT SILICONE  
 L12 554 S L11 AND (OIL# OR FAT#)  
 L13 209 S L12 AND PREPARATION  
 L14 1 S L13 AND MONOESTER AND DIESTER AND TRIESTER

=> s l13 and (docosnoic (2w) acid)  
 0 DOCOSNOIC  
 4622237 ACID  
 1639193 ACIDS  
 5136715 ACID  
 (ACID OR ACIDS)

0 DOCOSNOIC (2W) ACID  
 L15 0 L13 AND (DOCOSNOIC (2W) ACID)  
 => s l13 and acid  
 4622237 ACID  
 1639193 ACIDS  
 5136715 ACID  
 (ACID OR ACIDS)  
 L16 197 L13 AND ACID  
 => s l13 and (melting (2w) point)  
 267844 MELTING  
 356 MELTINGS  
 268009 MELTING  
 (MELTING OR MELTINGS)  
 725000 POINT  
 224457 POINTS  
 903929 POINT  
 (POINT OR POINTS)  
 35058 MELTING (2W) POINT  
 L17 0 L13 AND (MELTING (2W) POINT)  
 => s l13 and (octanoic or decanoic or dodecanoic or heptadecanoic or octadecanoic)  
 13510 OCTANOIC  
 9554 DECANOIC  
 1 DECANOICS  
 9554 DECANOIC  
 (DECANOIC OR DECANOICS)  
 9115 DODECANOIC  
 5671 HEPTADECANOIC  
 19380 OCTADECANOIC  
 L18 6 L13 AND (OCTANOIC OR DECANOIC OR DODECANOIC OR HEPTADECANOIC OR  
 OCTADECANOIC)  
 => d l18 ibib abs 1-6

L18 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:1151907 CAPLUS  
 DOCUMENT NUMBER: 147:502029  
 TITLE: Process for preparation of esters  
 INVENTOR(S): Hashimoto, Jiro; Negishi, Masataka; Kurata, Minoru  
 PATENT ASSIGNEE(S): Kao Corporation, Japan  
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 30pp.  
 CODEN: CNXXEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 101050178	A	20071010	CN 2007-10096724	20070406
JP 2007277169	A	20071025	JP 2006-106034	20060407
JP 2008013546	A	20080124	JP 2007-148919	20070605
PRIORITY APPLN. INFO.:			JP 2006-106034	A 20060407
			JP 2006-158406	A 20060607
OTHER SOURCE(S):		CASREACT 147:502029		

AB This invention provides a process for esterification of polyalcs. with aliphatic monocarboxylic acids at >190°C. For example, 470 g of pentaerythritol was reacted with 1750 g of pentanoic acid at 210 °C to give pentaerythritol tetrapentanoate. The process has the advantages of high purity (water < 200 mg/kg) and short reaction time. The title esters are useful lubrication oils

L18 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2008 ACS on SIN

ACCESSION NUMBER: 2004:996491 CAPLUS

DOCUMENT NUMBER: 142:25568

TITLE: Synthesis of lubricating oil esters with 1,1,1-tris(hydroxymethyl)propane or pentaerythritol and carboxylic acids under microwave radiation

AUTHOR(S): Zhang, Feng-Xiu; Ye, Xia; Zhang, Guang-Xian; Cheng, Shi-Hong

CORPORATE SOURCE: College of Basic Science & Technology, Southwest Agricultural University, Chongqing, 400716, Peop. Rep. China

SOURCE: Youji Huaxue (2004), 24(11), 1440-1443

CODEN: YCHHDX; ISSN: 0253-2786

PUBLISHER: Kexue Chubanshe

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

OTHER SOURCE(S): CASREACT 142:25568

AB Under microwave radiation the esters of lubricating oil were synthesized by the reaction of 1,1,1-tris(hydroxymethyl)propane or pentaerythritol with C5 to C9 carboxylic acids. The results show that the reaction time under microwave radiation is largely shortened and the reaction velocity increases ten to fifteen times. This method is very simple, and the structures of products have been determined by <sup>1</sup>H NMR, <sup>13</sup>C, NMR and IR spectra.

L18 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2008 ACS on SIN

ACCESSION NUMBER: 2004:515374 CAPLUS

DOCUMENT NUMBER: 141:73686

TITLE: Chemical synthesis comprising a heat treatment by intermittent dielectric heating combined with a recirculation system

INVENTOR(S): Charlier De Chily, Pierre; Raynard, Mikaele

PATENT ASSIGNEE(S): Aldivia, Fr.

SOURCE: Fr. Demande, 48 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2849343	A1	20040625	FR 2002-16743	20021223
WO 2004066683	A1	20040805	WO 2003-FR3752	20031217
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,				

PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,  
 TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,  
 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

JP 2006516008 T 20060615 JP 2004-567012 20031217

US 20060228088 A1 20061012 US 2006-540518 20060413

PRIORITY APPLN. INFO.: FR 2002-16743 A 20021223

WO 2003-FR3752 W 20031217

AB The present invention relates to the design of a process with intermittent dielec. heating combined with a system of recirculation. This process consists in subjecting the reagents to electromagnetic waves selected in the frequencies ranging 300GHz to 3MHz in an intermittent way using a system of recirculation. This permits treating oils absorbing little. There is great saving in capital investment. The process makes it possible to work on various scales, as well on a scale laboratory, semi-industrial or industrial, without losing the advantages of the continuous dielec. heating.

L18 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2008 ACS on SIN

ACCESSION NUMBER: 2004:515310 CAPLUS

DOCUMENT NUMBER: 141:76379

TITLE: Lanolin-free cosmetic compositions containing an aromatic ester of a hydroxy fatty acid

INVENTOR(S): Filippi, Vanina; Salem, Sophie; Auguste, Frederic

PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: Fr. Demande, 24 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2848823	A1	20040625	FR 2002-16533	20021223
FR 2848823	B1	20050506		
EP 1433458	A1	20040630	EP 2003-293094	20031210
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2004203885	A	20040722	JP 2003-425849	20031222
US 20040166130	A1	20040826	US 2003-743084	20031223
PRIORITY APPLN. INFO.:			FR 2002-16533	A 20021223
			US 2003-438772P	P 20030109

OTHER SOURCE(S): MARPAT 141:76379

AB A cosmetic makeup composition free from lanolin or its derivs. contains at least a liquid ester resulting from the esterification of an aromatic acid with a hydroxy fatty acid. This composition makes it possible to give a shining deposit on keratins. The aliphatic hydroxy compound is a hydroxy fatty acid such as ricinoleic acid or hydroxystearic acid. The composition contains a pasty compound having a hardness at 25° ranging 0.001-0.5 MPa, preferably 0.002-0.4 MPa, and whose liquid fraction at 23° lies between 9 and 97% in weight. Thus, a rouge formulation contained Finsolv BCO 22, Elifacos ST9 11, 2-decyltetradecanoic acid triglyceride 20, hydrogenated polyisobutene 10, diisostearyl malate 11, polybutylene 2.5, octacosanyl stearate 5, triglyceride mixture from lauric, myristic,

palmitic, and stearic acids 2, polyethylene wax 5, and modified Hectorite 3%, pigments and preservatives and perfume qs.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:107656 CAPLUS  
DOCUMENT NUMBER: 88:107656  
ORIGINAL REFERENCE NO.: 88:16875a,16878a  
TITLE: Synthesis and properties of pentaerythritol esters  
AUTHOR(S): Pivovarov, T. E.; Lebedev, E. V.; Sarnavskaya, T. I.; Sterzhinskaya, L. G.  
CORPORATE SOURCE: USSR  
SOURCE: Neftepererabotka i Neftekhimiya (Kiev) (1977), 15, 98-100  
CODEN: NEFNBY; ISSN: 0548-1406  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian

AB The title esters, used as synthetic lubricating oils, were obtained by reaction of acid chlorides with pentaerythritol at 50°. The physicochem. properties and thermal and oxidative stabilities are given for pentaerythritol esters of C7-10 branched acids, decanoic acid,  $\alpha,\alpha$ -dimethyloctanoic acid, and branched acids prepared from propylene tetramer.

L18 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1961:24347 CAPLUS  
DOCUMENT NUMBER: 55:24347  
ORIGINAL REFERENCE NO.: 55:4819b-d,4820a  
TITLE: Dietetic fat-substitute compositions  
INVENTOR(S): Minich, Arthur  
PATENT ASSIGNEE(S): Heyden Newport Chemical Corp.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2962419		19601129	US 1957-660097	19570520

AB A dietetic food composition for use in place of fat, e.g. as shortening, oil in salad dressing, or for frying, is composed of the product of esterification of a polyhydric alc. with a fatty acid containing at least 4 C atoms. The alcs. contain 1-8 OH groups and include at least 1 neopentyl nucleus. Rats were fed as much as they desire of a dietetic mixture of casein and sugar, supplemented with vitamins and minerals plus for the control diet 11% corn oil and for the test diet 1% corn oil and 10% pentaerythritol tetracaprylate. After 7 wks., each rat on the test diet had, on the average, 24 mg. less total lipids per 100 cc. of the blood serum than had the rats on the control diet. The liquid vegetable oil used in preparation of pie-crust dough was replaced by an equal amount of pentaerythritol tetracaprylate with little change in the resulting dough. Polyhydric alcs. specified in the claims are neopentyl glycol., tris(hydroxymethyl)ethane and -propane, pentaerythritol, and dipentaerythritol. Other esters specified are tris(hydroxymethyl)ethane



tricaproate and tricaprylate.

=> d his

(FILE 'HOME' ENTERED AT 16:21:03 ON 08 JUL 2008)

FILE 'CAPLUS' ENTERED AT 16:21:18 ON 08 JUL 2008

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L1      0 S (PREPARE OR MAKE) (L) (FATTY (3W) ACID (3W) ESTER (3W) PENTAC
L2      38 S (PENTAERYTHRITYL (5W) ESTER)
L3      0 S L2 AND PREPARE
L4      2 S L2 AND PROCESS
L5      0 S PENTAERYTHRITYL (4W) EICOSANOATE
L6      0 S PENTAERYTHRITYL (3W) HEXADECANOATE
L7      29307 S PENTAERYTHRITOL
L8      1339 S L7 AND ESTERIFICATION
L9      378 S L8 AND (FATTY (3W) ACID)
L10     17 S L9 AND (COSMETIC# OR SKIN)
L11     1320 S L8 NOT SILICONE
L12     554 S L11 AND (OIL# OR FAT#)
L13     209 S L12 AND PREPARATION
L14     1 S L13 AND MONOESTER AND DIESTER AND TRIESTER
L15     0 S L13 AND (DOCOSNOIC (2W) ACID)
L16     197 S L13 AND ACID
L17     0 S L13 AND (MELTING (2W) POINT)
L18     6 S L13 AND (OCTANOIC OR DECANOIC OR DODECANOIC OR HEPTADECANOIC

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=> l12 and (octanoic or nonanoic or decanoic or dodecanoic or tetradecanoic or hexadecanoic or heptadecanoic or octadecanoic or eicosanoic)  
L12 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> s l12 and (octanoic or nonanoic or decanoic or dodecanoic or tetradecanoic or hexadecanoic or heptadecanoic or octadecanoic or eicosanoic)

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13510 OCTANOIC
5166 NONANOIC
9554 DECANOIC
1 DECANOICS
9554 DECANOIC
      (DECANOIC OR DECANOICS)
9115 DODECANOIC
12277 TETRADECANOIC
18921 HEXADECANOIC
5671 HEPTADECANOIC
19380 OCTADECANOIC
6891 EICOSANOIC
L19    29 L12 AND (OCTANOIC OR NONANOIC OR DECANOIC OR DODECANOIC OR TETRA
      DECANOIC OR HEXADECANOIC OR HEPTADECANOIC OR OCTADECANOIC OR
      EICOSANOIC)

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=> s l19 not l18

L20 23 L19 NOT L18

=> d l20 1-7 ibib abs

L20 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2008:372915 CAPLUS  
 DOCUMENT NUMBER: 148:406028  
 TITLE: High temperature lubricant for foil stretching chain lubrication  
 INVENTOR(S): Hollmann, Alfred  
 PATENT ASSIGNEE(S): Addinol Lube Oil G.m.b.H., Germany  
 SOURCE: Ger. Offen., 8pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 102006043747	A1	20080327	DE 2006-102006043747	20060913
PRIORITY APPLN. INFO.:			DE 2006-102006043747	20060913

AB A synthetic high temperature lubricant for the lubrication of chains, in particular of sliding chains or stretching chains of foil stretching equipment, consists of a synthetic base oil mixture A containing (a) a trimellitate ester base material, (b) a polyol ester base material, and (c) a complex ester base material; and an additive package B containing (a) corrosion inhibitors, (b) extreme pressure additives, (c) antioxidants, (d) non-ferrous metal deactivators, and (e) antiwear additives. The trimellitate ester base material is an esterification product of trimellitic acid, or trimellitic acid anhydride, or a benzenetricarboxylic acid with hydroxy derivs. of aliphatic C5-12 hydrocarbons, especially trioctyltrimellitate, triisooctyltrimellitate, trinonyltrimellitate, triisononyltrimellitate, and tris-2-ethylhexyltrimellitate. The polyol ester base material can include sterically hindered polyol esters, saturated neopentyl esters, esters of trimethylolpropane, or pentaerythritol. The complex ester base material serves as a thickening agent and includes polyol esters, sterically hindered substituted polyol esters, and polyol esters being crosslinked via polyalcs. or acids. Addnl., the synthetic base oil mixture A contains adhesives, such as polyolefins, polyisobutylene, and polybutene in the form of oils having a mol. weight of 300-3000 g/mol or in form of viscous masses with a mol. weight of 40,000-120,000 g/mol. The corrosion inhibitors can include dicarboxylic acid esters, succinimide half esters, alkylated succinimide half esters, succinimide derivs., esters of phosphoric acid with alcs. or phenols, organic phosphates, amine-neutralized mono-, di-, or triesters of phosphoric acid, naphthenic acids, diamides, fatty acid amides, sulfonic acids, arylsulfonates, imidazoline derivs., N-oleylsarcosine, and dodecylmonosuccinimide ester. The extreme pressure additive can include esters of phosphoric acid with alcs. or phenols, organic phosphates, arylphosphoric acid esters, alkylphosphoric acid esters, mixed phosphoric acid esters, mono-, di-, or triesters of phosphoric acid, dithiophosphoric acid esters, dialkyl dithiophosphate, triarylphosphoric acid esters, trioctyl phosphate, tricresyl phosphate, tris(2-ethylhexyl) phosphate, tert-butyl-Ph phosphate, alkylated dithiocarbamate, methylene-bis-(dibutylthiocarbamate), sulfides, disulfides, dibenzylsulfide, and imidazoline. The antioxidants can include phenols substituted with sterically hindering groups, phenolic ethers, alkyl phenols, alkylated thiophenols, butylated hydroxytoluene (BHT), 2,6-di-tert-butyl-4-p-cresol, butylated hydroxyanisol (BHA), tris-(nonylphenyl) phosphite, 2,6-di-tert-butylphenol, aromatic amines, amines, diphenylamine, cyclic

amines, naphthylamine, aniline, toluidine, S-P-compds., phosphites, thioethers, dialkylsulfite, dialkylphosphite, phenylamine, phenyl-1-naphthylamine, p,p'-dialkyldiphenylamine, carbamates, and dithiocarbamates. The non-ferrous metal deactivators can include nitrogen heterocyclic compds. with 2 or 3 N atoms in a 5 or 6-membered ring, azole, triazole, triazone, triazoline, triazophos, triazolamine, triazole derivs., benzotriazole and derivs., toluyltriazole, benzothiazole derivs., benzothioephene, dimercaptobenzothiazole derivs., 2,5-dimercapto-1,3,4-thiadiazol derivs., mercaptobenzthiazole, sodium 2-mercaptobenzothiazole, and N-salicylidene ethylamine. The antiwear additives can include trialkyl phosphate, tricresyl phosphate, phosphoric acid esters, aminophosphate, dialkyldithiophosphoric acid esters, amine-neutralized phosphoric acid esters, phosphoric acid amides, thiophosphates, S-P-compds., phosphites, dicarbamate, dithiophosphate, thiadiazole, dialkylphosphite, octadecanoic acid, stearic acid, octadecenoic acid, oleic acid, fatty acid esters, fatty acids, sulfides, disulfides, trisulfides, polysulfides, sarcosine, oxazoline, amines, ethoxylated amines, imides, amides, zinc dithiophosphate, and tri-Ph phosphothionate. The lubricant is stable and maintains its lubricating properties at temps. of  $\leq 260^\circ$  and a chain velocity of  $\leq 600$  m/min. The lubricant is chemical inert to foils made of polypropylene, polyethylene, polystyrene, or other thermoplastics.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1270244 CAPLUS

DOCUMENT NUMBER: 147:525023

TITLE: Novel lubricants, lubricant additives, and functional fluids prepared by epoxidation of unsaturated fatty acids and fatty esters

INVENTOR(S): Hoelderich, Wolfgang Friederich; Schuster, Hans; Rios, Luis Alberto; Weckes, Patrick Philipp

PATENT ASSIGNEE(S): Hoelderich, Wolfgang, Germany

SOURCE: Ger. Offen., 18pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 102006021141	A1	20071108	DE 2006-102006021141	20060506

PRIORITY APPLN. INFO.:

DE 2006-102006021141 20060506

OTHER SOURCE(S): MARPAT 147:525023

AB Novel, environmentally acceptable lubricating oils, lubricant additives, hydraulic fluids, and functional fluids are prepared by epoxidn. of unsatd. fatty acids, esters, and fatty acid derivs., as well as unsatd. synthetic esters, followed by reaction of the epoxides with carboxylic acids. The reactive carboxylic acids are of general structures R1-CO2H and R4R3R2C-CO2H (R1 = C1-12-alkyl, Ph, aryl, and substituted aryl; R2 = H or C1-12-alkyl, Ph, aryl and substituted aryl, C1-12-alkyloxy, aralkyloxy; and R2=R3=R4, in which R2, R3, and R4 can be the same or different). The epoxides are synthesized from unsatd. fatty acids and fatty acid esters of structures R5-CH=CH-R6 and R7-CH=CH-R8, resp., in which: (1) R5 = X-CO2H, X = saturated or unsatd. C3-11-alkyl with 0-3 double bonds; and R6 saturated

and

unsatd. C3-10-alkyl with 0-3 double bonds, and (2) R7 = X-CO2Y, in which X = saturated or unsatd. C3-11-alkyl and Y = C1-12-alkyl; R8 = saturated and unsatd.

C3-10-alkyl, both with 0-3 double bonds. Suitable fatty acids are oleic acid, linoleic acid, linolenic acid, palmitoleic acid, eicosenoic acid, and erucic acid; suitable fatty acid esters include fatty acid Me esters, Me oleate, rape oil, soybean oil, sunflower oil, Me linoleate, Me linolenate, Me eicosenoate, Me erucate, Me palmitoleate, glycerol trioleate, glycerin trilinoleate, trimethylolpropane trioleate, trimethylolpropane trilinoleate, trimethylolpropane trilinoleate, pentaerythritol tetraoleate, pentaerythritol tetralinolate, and pentaerythritol tetralinolate.

L20 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2008 ACS ON STN  
 ACCESSION NUMBER: 2006:1253927 CAPLUS  
 DOCUMENT NUMBER: 146:84346  
 TITLE: Lubricant composition for refrigerators  
 INVENTOR(S): Yamada, Nunehiro; Kajiki, Takashi; Shizu, Nobuhiko  
 PATENT ASSIGNEE(S): NOF Corporation, Japan  
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 13pp.  
 CODEN: CNXXEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1869177	A	20061129	CN 2006-10093712	20060526
JP 2006328275	A	20061207	JP 2005-156071	20050527
IN 2006KO00494	A	20070622	IN 2006-KO494	20060524
KR 2006122770	A	20061130	KR 2006-47505	20060526
			JP 2005-156071	A 20050527

PRIORITY APPLN. INFO.:  
 AB The title lubricant composition is composed of esters obtained from mixed alcs. and mixed saturated linear carboxylic acids. The mixed alcs. are composed of (by mol.%) neopentyl glycol 10-50, pentaerythritol 50-89 and dipentaerythritol 0.03-3. The mixed saturated linear carboxylic acids are composed of (by mol.%) pentanoic acid and heptanoic acid 70-95, and octanoic acid 5-30. The lubricant composition has the advantages of low kinematic viscosity (6-28 mm<sup>2</sup>/s at 40°), excellent lubricity, and good low temperature stability. The lubricant composition can be applied on refrigerators, especially on those using non-CFC refrigerants.

L20 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2008 ACS ON STN  
 ACCESSION NUMBER: 2006:817646 CAPLUS  
 DOCUMENT NUMBER: 145:252031  
 TITLE: High temperature lubricant compositions and methods of making the same  
 INVENTOR(S): Burgo, Rocco V.; Kolangaden, Paulson  
 PATENT ASSIGNEE(S): Inolex Investment Corporation, USA  
 SOURCE: PCT Int. Appl., 24pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006086752	A1	20060817	WO 2006-US4965	20060210
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: US 2005-651733P P 20050210

AB A high temperature lubricant composition for lubricating conveyed oven chains and

other high temperature applications comprises at least one polyol polyester polymer and optionally at least one additive. The polyol polyester polymer can be made from esterification of at least one polyol, at least one dicarboxylic acid and at least one monocarboxylic acid. Optionally, at least one polyol polyester, at least one extreme pressure/antiwear agent and/or at least one metal deactivator is added to the final lubricant composition. The lubricant has a kinematic viscosity @40.degree.C of from about 50 to about 1,000 cSt, a viscosity index of at least about 140, and a flash point of at least about 270°C. The lubricants have low evaporation loss, high resistance to oxidation, and provide reduction of friction when used in high temperature lubricant applications.

Methods of applying the composition to conveyed oven chains include, but are not limited to, spraying, dipping, brushing, manually applying and combinations thereof.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2008 ACS ON STN

ACCESSION NUMBER: 2006:51095 CAPLUS

DOCUMENT NUMBER: 144:151981

TITLE: Inexpensive fatty acid-modified acrylic monomers with fast curability, their radiation-curable compositions, and printed materials using them

INVENTOR(S): Sato, Koji

PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006016508	A	20060119	JP 2004-196375	20040702

PRIORITY APPLN. INFO.: JP 2004-196375 20040702

AB The monomers are manufactured by esterification of (A) multimer mixts. of (a1)  $\text{CH}_2\text{:CHCO}_2(\text{CH}_2\text{CH}_2\text{CO}_2)_k\text{H}$  ( $k \geq 0$ ; average  $k = 0.1-3$ ) and (a2)  $\text{CmH}_2\text{m+1CO}_2(\text{CH}_2\text{CH}_2\text{CO}_2)_n\text{H}$  ( $m = 1-20$ ,  $n \geq 0$ ; average  $n = 0.1-3$ ) prepared by reacting C2-21 fatty acids with acrylic acid and (B) polyols, wherein the monomers satisfy equations of  $0.05 \leq (x_2/x_1) \leq 0.5$  ( $x_1$  = molar ratio of a1,  $x_2$  = molar ratio of a2) and  $0.9 \leq (X/YZ) \leq 1.5$  ( $X$  = molar ratio of A,  $Y$  = molar ratio of B,  $Z$  = number of OH in A). The compns., useful for lithog., contain fatty acid-modified acrylic monomers 1-90, (meth)acrylic monomers 1-90, and polymers with softening point 50-180°. Thus, fatty acid-modified monomers were manufactured by reacting 144 parts octanoic acid with 813 parts acrylic acid in the presence of p-toluenesulfonic acid at 120° for 5 h and further reacting with 272 parts pentaerythritol. A composition containing the monomers, diallyl phthalate polymer (Dap Tohto DT 170), and a blue pigment showed good flowability and printability.

L20 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:733062 CAPLUS

DOCUMENT NUMBER: 139:247817

TITLE: Carboxylic anhydride-polyol ester-amide reaction products as lubricating oil dispersants, especially for synthetic ester-based oils

INVENTOR(S): Bessonette, Paul W.; Godici, Patrick E.; Fyfe, Kim E.; Kim, Jeenok T.

PATENT ASSIGNEE(S): BP Corporation North America, Inc., USA

SOURCE: Eur. Pat. Appl., 29 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1344769	A1	20030917	EP 2003-251548	20030313
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 20030228986	A1	20031211	US 2003-370427	20030220
US 6844299	B2	20050118		
CA 2419995	A1	20030913	CA 2003-2419995	20030226
JP 2003268395	A	20030925	JP 2003-68461	20030313
PRIORITY APPLN. INFO.:			US 2002-364190P	P 20020313

OTHER SOURCE(S): MARPAT 139:247817

AB Lubricating oil dispersants, especially compatible with synthetic ester-based turbine oils, are prepared as reaction products of: (1) one or more carboxylic acids, (2) a polyhydric alc. or partially esterified polyhydric alc., (3) an amine carrier, especially a dicarboxylic acid

or a cyclic acid anhydride, and (4) a polyamine containing up to 10 nitrogen atoms, in which the final product contains at least one ester function and at least one amide function. The polyhydric alc. or partially esterified polyols have the general structure  $(\text{R}_1\text{x})(\text{R}_2\text{y})\text{C}(\text{CH}_2\text{OH})_n$ , in which  $x$  and  $y = 0$  or 1;  $n = 2, 3, \text{ or } 4$ ;  $\text{R}_1$  and  $\text{R}_2$  are  $\text{C}_{1-50}$ -hydrocarbyl, such that when  $n = 3$ ,  $\text{R}_2$  is not present, and when  $n = 4$ ,  $\text{R}_1$  is not present. The hydrocarbon acid makes up the non-polar hydrocarbon portion of the dispersant and the polyamine functions as the polar headgroup. The diacid

or cyclic anhydride provides a means for attaching the polar polyamine to the dispersant structure through an amide linkage. The final compound has a general structure  $Ra(C:O)-O-CH_2-C(Rb)(Rc)-CH_2-O-C(:O)-X-C(:O)-Y$ , in which Ra, Rb, and Rc are C1-50-hydrocarbyl or substituted hydrocarbyl, X = C<sub>5</sub>16-hydrocarbyl, and Y is an amine group with ≤10 nitrogen atoms. When the polyhydric alc. is pentaerythritol and the amine carrier is succinic anhydride, X = -CH<sub>2</sub>CH<sub>2</sub>- and Rb and Rc are -CH<sub>2</sub>-O-C(:O)-Rb and -CH<sub>2</sub>-O-C(:O)-Rc.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:96284 CAPLUS

DOCUMENT NUMBER: 138:156095

TITLE: High-viscosity synthetic ester base oils prepared by esterification of neopentyl-type polyols with linear and branched carboxylic acids  
 INVENTOR(S): Carr, Dale D.; McHenry, Michael A.; Styer, Jeremy P.  
 PATENT ASSIGNEE(S): Hatco Corporation, USA  
 SOURCE: Eur. Pat. Appl., 10 pp.  
 CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1281701	A1	20030205	EP 2002-25590	20021115
EP 1281701	B1	20050824		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
US 20040092410	A1	20040513	US 2002-194413	20020712
US 6774093	B2	20040810		
GB 2380740	A	20030416	GB 2002-26615	20021114
AT 302745	T	20050915	AT 2002-25590	20021115
CA 2496307	A1	20040122	CA 2003-2496307	20030709
WO 2004007650	A1	20040122	WO 2003-US21264	20030709
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003247913	A1	20040202	AU 2003-247913	20030709
BR 2003005503	A	20040928	BR 2003-5503	20030709
CN 1668726	A	20050914	CN 2003-816604	20030709
JP 2005533149	T	20051104	JP 2004-521551	20030709
US 20050014660	A1	20050120	US 2004-915156	20040809
PRIORITY APPLN. INFO.:			US 2002-194413	A 20020712
			WO 2003-US21264	W 20030709

OTHER SOURCE(S): MARPAT 138:156095

AB High-viscosity synthetic ester base oils are prepared by

esterification of a neopentyl-type polyol with C4-10-linear monocarboxylic acid and a C5-10-branched monocarboxylic acid, with excess hydroxyl groups, to form a partial ester, followed by neutralization of the acid catalyst, and reacting the partial esters with addnl. linear and branched monocarboxylic acids. The synthetic esters have a viscosity of 68-400 cSt at 40°. The neopentyl-type polyol is of general structure R2C(CH2OH)2, in which R = Me, Et, and CH2OH. Suitable polyols include pentaerythritol, trimethylolpropane, trimethylethane, and neopentyl glycol. Lubricating oils formed from these base oils have satisfactory miscibility with standard highly or fully fluorinated refrigerants.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L20 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:958765 CAPLUS

DOCUMENT NUMBER: 138:40845

TITLE: Curable coating compositions, their printing inks, printing process therewith and printed products therefrom

INVENTOR(S): Sato, Koji

PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 29 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002363446	A	20021218	JP 2001-167659	20010604
PRIORITY APPLN. INFO.:			JP 2001-167659	20010604

AB Title comps., useful to prepare oil-based inks with easy cleanability and resulting low swelling of blankets, comprise (A) hybrid comds. prepared by esterification of (a1) polyols, (a2) cyclic monobasic acids and/or C4-36 fatty acids, and (a3) (meth)acrylic acids, (B) phenol-free petroleum resins and/or phenol-free rosin ester resins, (C) vegetable oils or their fatty acid esters, and (D) (meth)acrylic monomers or oligomers. A varnish comprising a hybrid ester (from trimethylolpropane, rosin, and acrylic acid), a modified petroleum resin (from Maruzen M 510A, maleic acid, and 2-butyl-2-ethyl-1,3-propanediol), linseed oil, dipentaerythritol hexaacrylate (I), trimethylolpropane triacrylate (II), and tert-Bu hydroquinone was mixed with a pigment, initiators, a metal drier, and more I and II to form an UV-curable and mineral terpene-cleanable ink giving prints with gloss 83% initially and 72% after 72 h and resulting a blanket swelling of 0.8%.

L20 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:790216 CAPLUS

DOCUMENT NUMBER: 137:313302

TITLE: Lubricating oils based on polyhydric

alcohols with heterogeneous fatty acid chain lengths

INVENTOR(S): Kodali, Dharma R.; Nivens, Scott C.



PATENT ASSIGNEE(S): Cargill Incorporated, USA  
 SOURCE: U.S., 23 pp., Cont.-in-part of U.S. 6,278,006.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6465401	B1	20021015	US 2000-487700	20000119
US 6278006	B1	20010821	US 1999-233617	19990119
AT 343621	T	20061115	AT 2000-909928	20000119
US 20030176300	A1	20030918	US 2002-253742	20020924
US 6943262	B2	20050913		
US 20050176597	A1	20050811	US 2005-72071	20050304
PRIORITY APPLN. INFO.:			US 1999-233617	A2 19990119
			US 2000-487700	A1 20000119
			US 2002-253742	A3 20020924

OTHER SOURCE(S): MARPAT 137:313302

AB Oils containing a triacylglycerol polyol ester and a nonglycerol polyol ester are described, as well as methods of making such oils. The esters are of the following structure: C(CH<sub>2</sub>O-C:OR1)(CH<sub>2</sub>O-C:OR2)R3R4, where R1 and R2 represent aliphatic C3-C23, one C3-C9 and the other C11-C23, and R3 and R4 may be, independently, H, aliphatic C1-C4, or another ester of the form -(CH<sub>2</sub>)x-O-C:OR5, where X=0-6 and R5 is aliphatic C3-C23. Alcs. suitable for esterification include trimethylolpropane, pentaerythritol, neopentyl glycol, and 2-alkyl glycerol derivs. Fatty acids used are from C2-C24 and are aliphatic, straight or branched, saturated or unsatd. and may be derived from vegetable oil. Methods for improving lubrication properties of a vegetable oil by transesterification technique are also described.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:314431 CAPLUS

DOCUMENT NUMBER: 136:327936

TITLE: Production of high-quality polyol and glycol monocarboxylic acid esters for use in lubricating oils and greases

INVENTOR(S): Memita, Michimasa; Hirao, Keiji

PATENT ASSIGNEE(S): NOF Corporation, Japan

SOURCE: Eur. Pat. Appl., 30 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1199300	A2	20020424	EP 2001-308746	20011015
EP 1199300	A3	20031008		
EP 1199300	B1	20070822		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2002193882	A	20020710	JP 2001-300201	20010928
US 20020137640	A1	20020926	US 2001-977926	20011015
US 6617289	B2	20030909		
ES 2292544	T3	20080316	ES 2001-308746	20011015
AU 2001079458	A	20020418	AU 2001-79458	20011016
AU 780896	B2	20050421		
CN 1347867	A	20020508	CN 2001-136421	20011016
KR 2007112360	A	20071123	KR 2007-115128	20071112
PRIORITY APPLN. INFO.:			JP 2000-315799	A 20001016
			KR 2001-63643	A3 20011016

AB High-quality esters useful as base oils in lubricating oils, greases, crankcase oils, and machine lubricating oils for refrigerating apparatus are prepared by reacting a neopentyl alc. or polyol with 2-6 hydroxy groups (preferably 2-4 hydroxy groups) with a C5-10-monocarboxylic acid (or C5-12-monocarboxylic acid, resp.) in the presence of 10<sup>-5</sup> to 5 + 10<sup>-3</sup> mol of a Lewis acid and 3 + 10<sup>-4</sup> to 5 + 10<sup>-3</sup> mol of a phosphorus-containing reducing agent. The Lewis acid catalyst is selected from a Ti-, Sn-, Sb-, Ge-, or Zr-containing compound, especially alcoholates, esters, and chlorides. Suitable reducing agents include hypophosphorus acid, Na hypophosphosphite, Na phosphite, and phosphorus acid.

L20 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:390456 CAPLUS

DOCUMENT NUMBER: 133:122470

TITLE: Development of a new catalyst system for synthesis of di-esters, polyol esters and mixed polyol esters synthetic base stocks

AUTHOR(S): Srivastava, R. C.

CORPORATE SOURCE: Defence Materials and Stores Research and Development Establishment, Kanpur, 208 013, India

SOURCE: International Symposium on Fuels and Lubricants, Conference Papers, New Delhi, Dec. 8-10, 1997 (1998), Meeting Date 1997, 173-177. Editor(s): Basu, B.; Srivastava, S. P. Tata McGraw-Hill Publishing: New Delhi, India.

CODEN: 69CHAY

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English

AB A review, with 5 refs., discusses synthesis and properties of ester base stocks.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:233975 CAPLUS

DOCUMENT NUMBER: 130:239798

TITLE: Complex esters, formulations comprising these esters and use thereof

INVENTOR(S): Kenbeek, Dirk; Verboom, Cornelis; Van Der Waal, Gijsbert

PATENT ASSIGNEE(S): Unichema Chemie B.V., Neth.

SOURCE: PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9916849	A1	19990408	WO 1998-EP6145	19980928
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2304509	A1	19990408	CA 1998-2304509	19980928
CA 2304509	C	20071120		
AU 9911475	A	19990423	AU 1999-11475	19980928
EP 1019465	A1	20000719	EP 1998-954289	19980928
EP 1019465	B1	20030730		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2003522204	T	20030722	JP 2000-513925	19980928
AT 246239	T	20030815	AT 1998-954289	19980928
IN 1998DE02903	A	20070209	IN 1998-DE2903	19980928
US 6462001	B1	20021008	US 2000-541166	20000331
IN 2005DE01856	A	20070209	IN 2005-DE1856	20050718
PRIORITY APPLN. INFO.:			EP 1997-202992	A 19971001
			IN 1998-DE2903	A3 19980928
			WO 1998-EP6145	W 19980928

AB An ester resulting from an esterification reaction between at least one polyfunctional alc. and at least one polyfunctional carboxylic acid using a chain stopping agent to form ester bonds with the remaining hydroxyl or carboxyl groups is disclosed. The polyfunctional carboxylic acid comprises an aliphatic dicarboxylic acid containing from 9 to 18 carbon atoms, dimerized and/or trimerized fatty acids or mixts. thereof, with the proviso that dimerized and trimerized fatty acids do not constitute >80% by weight of the total amount of polyfunctional carboxylic acid used. The chain stopping agent may be a monocarboxylic acid or a monofunctional alc. having at least 14 carbon atoms. The complex esters have a kinematic viscosity at 100 C of from 30 to 1000 cSt, preferably from 30 to 200 cSt. The complex ester is useful "as is" or as an additive and/or as a base fluid and/or a thickener in transmission oils, hydraulic fluids, four-stroke oils, fuel additives, compressor oils, greases, chain oils and for metal working metal rolling applications. A multigrade gear oil formulation comprising one or more of the above complex esters is also part of the invention.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 13 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1998:719120 CAPLUS  
DOCUMENT NUMBER: 129:333147  
ORIGINAL REFERENCE NO.: 129:67877a,67880a  
TITLE: Synthetic ester lubricants for refrigerator systems  
INVENTOR(S): Grasshoff, Hans Dieter; Synek, Vladislav; Kohnz, Harald  
PATENT ASSIGNEE(S): RWE-DEA AG fuer Mineraloel und Chemie, Germany;

SOURCE: Deutsche Texaco AG  
U.S., 6 pp., Cont.-in-part of U.S. Ser. No. 931,840,  
abandoned.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5830833	A	19981103	US 1995-418303	19950410
SK 279064	B6	19980603	SK 1992-2552	19920819
PRIORITY APPLN. INFO.:			US 1992-931840	B2 19920818

AB Lubricants for refrigeration equipment operating with fluorocarbons as refrigerants are produced by esterification of at least one neopolyol type polyhydric alc. with an acid component comprising 60 to 80 mol% n-pentanoic acid, from .apprx.40 to .apprx.10 mol% of at least one straight chain C6-10 monocarboxylic acid and from .apprx.0 to .apprx.30 mol% C6-10 branched chain monocarboxylic acid. The resulting esters are suitable for use without lubricating oil additives.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 14 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1996:320046 CAPLUS  
DOCUMENT NUMBER: 124:347709  
ORIGINAL REFERENCE NO.: 124:64485a,64488a  
TITLE: Synthesis of pentaerythritol esters and their properties as low-flammability dielectric fluids  
AUTHOR(S): Chen, Erfan; Xiao, Yi; Xu, Xin  
CORPORATE SOURCE: Dep. Polymer Eng., Shenyang Inst. Chem. Technol., Shenyang, 110021, Peop. Rep. China  
SOURCE: Yingyong Huaxue (1996), 13(2), 61-63  
CODEN: YIHUED; ISSN: 1000-0518  
PUBLISHER: Yingyong Huaxue Bianji Weiyuanhui  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese

AB Factors affecting the esterification of pentaerythritol with aliphatic acids and C5-9 mixed acids and properties of pentaerythritol esters were studied. The results showed that the esterification products of octanoic acid and C5-9 mixed acids are suitable as low-flammability dielec. fluids such as transformer oil, switch oil, capacitor fluid, etc. The flash point was > 240°C, pour point < -40°C and breakdown voltage > 35 kV/cm.

L20 ANSWER 15 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1990:594555 CAPLUS  
DOCUMENT NUMBER: 113:194555  
ORIGINAL REFERENCE NO.: 113:32895a,32898a  
TITLE: Correlations between structure and physical and rheological properties in the class of neopentanepolyol esters used as lubricating oils  
AUTHOR(S): Nutiu, R.; Maties, M.; Nutiu, Maria  
CORPORATE SOURCE: Res. Cent. Plast. Mater., Polytech. Inst. Timisoara,

SOURCE: Timisoara, Rom.  
Proc. Conf. Synth. Lubr. (1989), 368-82. Editor(s):  
Zakar, Andras. Hung. Hydrocarbon Inst.:  
Szazhalombatta, Hung.  
CODEN: 56TUAO

DOCUMENT TYPE: Conference  
LANGUAGE: English

AB Owing to their high thermal stability, trimethylol-propane and pentaerythritol esters are mostly used in obtaining base oils for thermal engines. Their characteristics can be improved by using mixts. of acids or polyols, suitably chosen, in the esterification process. The graphical correlation of the phys. and rheol. consts. indicates their variation as a function of the nature and number of C atoms in the chain of monocarboxylic acids used to obtain these esters.

L20 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1985:408642 CAPLUS

DOCUMENT NUMBER: 103:8642

ORIGINAL REFERENCE NO.: 103:1497a,1500a

TITLE: Pentaerythritol dicarboxylic acid-monocarboxylic acid ester. Properties of pentaerythritol dicarboxylic acid-monocarboxylic acid esters as synthetic lubricant bases

AUTHOR(S): Werner, E.; Wenzel, B.; Finger, H.; Koeppert, G.

CORPORATE SOURCE: VEB Petrolchem. Komb. Schwedt, Ger. Dem. Rep.

SOURCE: Tribologie und Schmierungstechnik (1985), 32(2), 75-8

CODEN: TRSCEM; ISSN: 0724-3472

DOCUMENT TYPE: Journal

LANGUAGE: German

AB Esters and partial esters of pentaerythritol with mono- and di-carboxylic acids were synthesized and studied for the purpose of preparing oxidation- and heat-resistant lubricating base oils. In order to limit the formation of highly viscous oils (i.e., high mol.-weight highly branched polyesters), the esterification feedstock should contain pentaerythritol-dicarboxylic acids-monocarboxylic acids in a .apprx.1:.apprx.0.5:.apprx.3 (mol) ratio. Oil properties are correlated with contents of di- and monocarboxylic acids. Acids tested included adipic acid, pimelic acid, sebacic acid, caprylic acid, C6-9-branched alkyl fatty acids, and octanoic acid-rich distillation foreruns of natural fatty acids. Thus, degradation-resistant middle-viscosity lubricating oils were prepared and used at up to 210° with satisfactory results.

L20 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:113328 CAPLUS

DOCUMENT NUMBER: 92:113328

ORIGINAL REFERENCE NO.: 92:18475a,18478a

TITLE: Synthetic ester and hydrogenated olefin oligomer lubricant and method of reducing fuel consumption

INVENTOR(S): Schick, John W.; Kaminski, Joan M.

PATENT ASSIGNEE(S): Mobil Oil Corp., USA

SOURCE: U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4175047	A	19791120	US 1978-945282	19780925
PRIORITY APPLN. INFO.:			US 1978-945282	A 19780925

AB Lubricating oils imparting reduced friction losses to autos include 20-40 weight% of the esterification products of (HO)xRCO<sub>2</sub>H acids (R = C<sub>5</sub>-30 alkylenyl; x = 1-5) and glycols (having 4-10 C atoms and 2-6 hydroxyl groups); the esters product contains a free hydroxyl group, and 60-80 weight% of a hydrogenated oligomer of a C<sub>6</sub>-12 olefin. Thus, a formulated lubricant [containing an oil composed of 80 weight% of hydrogenated decene trimer and 20 weight% of a partial ester having 2 free hydroxyl groups and formed from the reaction of 1 mol. of pentaerythritol and 2 moles. oleic acid] gave 28 and 24% reduction in coefficient of friction of 5 and 30 ft/min, resp. when tested in a low-velocity friction apparatus. The same lubricant gave 0.5% fuel saving when tested on a Ford 302-in<sup>3</sup>-displacement engine.

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 'ABA' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'

The following are valid formats:

ABS ----- GI and AB  
 ALL ----- BIB, AB, IND, RE  
 APPS ----- AI, PRAI  
 BIB ----- AN, plus Bibliographic Data and PI table (default)  
 CAN ----- List of CA abstract numbers without answer numbers  
 CBIB ----- AN, plus Compressed Bibliographic Data  
 CLASS ----- IPC, NCL, ECLA, FTERM  
 DALL ----- ALL, delimited (end of each field identified)  
 DMAX ----- MAX, delimited for post-processing  
 FAM ----- AN, PI and PRAI in table, plus Patent Family data  
 FBIB ----- AN, BIB, plus Patent FAM  
 IND ----- Indexing data  
 IPC ----- International Patent Classifications  
 MAX ----- ALL, plus Patent FAM, RE  
 PATS ----- PI, SO  
 SAM ----- CC, SX, TI, ST, IT  
 SCAN ----- CC, SX, TI, ST, IT (random display, no answer numbers;  
                   SCAN must be entered on the same line as the DISPLAY,  
                   e.g., D SCAN or DISPLAY SCAN)  
 STD ----- BIB, CLASS  
 IABS ----- ABS, indented with text labels  
 IALL ----- ALL, indented with text labels  
 IBIB ----- BIB, indented with text labels  
 IMAX ----- MAX, indented with text labels  
 ISTD ----- STD, indented with text labels  
 OBIB ----- AN, plus Bibliographic Data (original)  
 IOBIB ----- OBIB, indented with text labels  
 SBIB ----- BIB, no citations

SIBIB ----- IBIB, no citations

HIT ----- Fields containing hit terms

HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT)  
containing hit terms

HITRN ----- HIT RN and its text modification

HITSTR ----- HIT RN, its text modification, its CA index name, and  
its structure diagramHITSEQ ----- HIT RN, its text modification, its CA index name, its  
structure diagram, plus NTE and SEQ fieldsFHITSTR ----- First HIT RN, its text modification, its CA index name, and  
its structure diagramFHITSEQ ----- First HIT RN, its text modification, its CA index name, its  
structure diagram, plus NTE and SEQ fields

KWIC ----- Hit term plus 20 words on either side

OCC ----- Number of occurrence of hit term and field in which it occurs

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ENTER DISPLAY FORMAT (BIB):ibib abs

L20 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:155318 CAPLUS

DOCUMENT NUMBER: 82:155318

ORIGINAL REFERENCE NO.: 82:24777a,24780a

TITLE: Pentaerythritol tetranonanoate

INVENTOR(S): Keating, Terence

PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.

SOURCE: Brit., 4 pp.

CODEN: BRXXAA

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1374263	A	19741120	GB 1971-6673	19720217
PRIORITY APPLN. INFO.:			GB 1971-6673	A 19720217

AB The title compound(I), a lubricating oil for gas-turbine engines (no data), was prepared from 1-octene and MeOH by treatment with CO in the presence of pyridine and Co<sub>2</sub>(CO)<sub>8</sub> and subsequent air oxidation to give Me nonanoate(II) followed by hydrolysis-reesterification or transesterification with pentaerythritol(III). Thus, carbonylation at 190° and 200 bar gave 83.9% II. Treatment of II with III and PhONa at 230° gave 95% I. Successive hydrolysis and reesterification of II with III and Ti(OPr)<sub>4</sub> in xylene (2 hr at reflux, 2 hr at 230°) gave 90% I.

L20 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1974:553737 CAPLUS

DOCUMENT NUMBER: 81:153737

ORIGINAL REFERENCE NO.: 81:23957a,23960a

TITLE: Lubricant for the processing of thermoplastics

PATENT ASSIGNEE(S): Neynaber Chemie G.M.B.H.

SOURCE: Ger. Offen., 25 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2262266	A1	19740627	DE 1972-2262266	19721220
DE 2262266	C2	19820401		
JP 49090331	A	19740829	JP 1973-11648	19730130
JP 56009544	B	19810302		
US 3875069	A	19750401	US 1973-350917	19730413
NL 7316013	A	19740624	NL 1973-16013	19731122
NL 180116	B	19860801		
NL 180116	C	19870102		
GB 1449873	A	19760915	GB 1973-57066	19731210
FR 2211527	A1	19740719	FR 1973-44610	19731213
FR 2211527	B1	19780616		
ZA 7309621	A	19741127	ZA 1973-9621	19731220

PRIORITY APPLN. INFO.:

AB Lubricants comprising esters of dicarboxylic acids with fatty alcs., fatty acids with fatty alcs., or aliphatic polyols with fatty acids and esters of aliphatic polyols with dicarboxylic acids and fatty acids were used in PVC [9002-86-2] to minimize adhesion of the PVC to hot metal in processing apparatus. Thus, PVC containing 0.1% glycerol monooleate (I) [25496-72-4] and 0.1% esters prepared by esterification of 0.7 mole pentaerythritol [115-77-5] with 1.6mole stearic acid [57-11-4] followed by 0.6 mole adipic acid [124-04-9] adhered to processing rolls (at 185.deg.) after 90 min, compared 5 min and 75 min for PVC containing 0.2% I or 0.2% of the mixed ester, resp.

L20 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1973:112777 CAPLUS

DOCUMENT NUMBER: 78:112777

ORIGINAL REFERENCE NO.: 78:18111a,18114a

TITLE: Resin compositions for water-soluble paints

INVENTOR(S): Ohzawa, Akira; Fuyuke, Akira; Uchida, Keiichi

PATENT ASSIGNEE(S): Japan Oils and Fats Co., Ltd.

SOURCE: Jpn. Tokkyo Koho, 4 pp.

CODEN: JAXXAD

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 47032413	B4	19720819	JP 1965-10353	19650223



AB Water-thinned polyester coating compns. contained polyesters prepared from .geg.1 hydroxy fatty acid ester (acid value 40-120). For example, 10.7 parts hydroxypelargonic acid and 16.6 parts hydroxystearic acid in 4.6 part xylene were heated (esterification) at 220.deg. (to acid value 70), cooled to 180.deg., treated with glycerol 22.9, phthalic anhydride 28.9, and coconut oil fatty acid 5.9 parts, heated at 230.deg. (to acid value <1), cooled to <150.deg., treated with 15 parts phthalic anhydride, and heated at 160.deg. to give polyester (I) [37260-90-5] (acid value 60). I 100, Et3N 13, Me2CHOH 20, HOCH2CH2OBU 5, and water 62 parts were stirred to give a solution which (52 parts) was mixed with 13 parts Cymel 300 and 35 parts TiO2, diluted with water, coated on a steel plate, and baked at 140.deg. for 20 min to give a water- and oil-resistant coating with high gloss. Ricinoleic acid-linseed oil fatty acid ester, safflower oil-pentaerythritol ester, and hydroxypalmitic acid-hydroxycapric acid-linseed oil fatty acid ester were also used.

L20 ANSWER 21 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1969:107126 CAPLUS  
DOCUMENT NUMBER: 70:107126  
ORIGINAL REFERENCE NO.: 70:20033a,20036a  
TITLE: Epoxy plasticizers for synthetic resins  
INVENTOR(S): Miyakawa, Takero; Maeda, Shuichi  
PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc.  
SOURCE: Jpn. Tokkyo Koho, 5 pp.  
CODEN: JAXXAD  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 43029137	B4	19681213	JP	19660425

AB Esterification of pentaerythritol (I) with 3-cyclohexenecarboxylic acid and a mixture of caprylic and capric acid followed by epoxidn. with AcOOH (II) gives an epoxy plasticizer, useful in the manufacture of synthetic resins. Ester exchange of I with Me 1-methyl-3-cyclohexenecarboxylate and esterification of the intermediate with soybean oil fatty acids followed by epoxidn. with II give another plasticizer. Esterification of I with 6-methyl-3-cyclohexenecarboxylic acid and soybean oil fatty acids followed by treatment with II gives a third plasticizer.

L20 ANSWER 22 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1967:474172 CAPLUS  
DOCUMENT NUMBER: 67:74172  
ORIGINAL REFERENCE NO.: 67:14019a  
TITLE: Resinous compositions obtained by copolymerizing a partial ester of a polyhydric alcohol, a monocarboxylic acid, and an unsaturated dicarboxylic acid with a vinyl monomer  
INVENTOR(S): Bussell, George W.; Jones, Charles E.  
PATENT ASSIGNEE(S): Interchemical Corp.  
SOURCE: U.S., 5 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent

LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3335102		19670808	US 1963-263741	19630308

AB Vinyl monomers are copolymd. with a partial ester prepared by pre-esterification of a polyhydric alc. (I) (3-8 OH groups) with a carboxylic acid (II), followed by treatment of this partial ester with an unsatd. dicarboxylic acid (III) or anhydride. I is an internal plasticizer for the partial ester. Free OH groups of the copolymer resin are combined with an amine-aldehyde resin to give clear, hard, thermosetting coatings. For example, a mixture of nonanoic acid 338, tripentaerythritol 131, and amyl acetate (azeotropic agent) 20 g. was heated for 5 hrs. at 230°C. while water was azeotropically distilled, to give an acid number <3.0. The pre-ester was cooled to 48°C., 34.5 g. maleic anhydride added, the mixture heated to 72°C. for 15 min., and diluted with xylene to a 75 weight % partial ester solution (IV). A mixture of IV 100, Et methacrylate 170, methacrylic acid 5 g., and 1.2cc. tert-BuOOBz was blended at room temperature for 3 hrs., than slowly added to a refluxing mixture of 100 g. amyl acetate in 100 g. xylene. One hr. later, 20 g. xylene, 16 g. vinylcyclohexene dioxide, and 0.5 cc. tert-Bu2O2 were added, and after another hr., 21 g. xylene and 0.5 cc. tert-Bu2O2. The mixture was refluxed 3 hrs. to give a 45.4% weight partial ester solution (V), Gardner F viscosity, acid number 9.2. An enamel prepared from V 65, 60% melamine resin soln.33, and nonleafing Al powder 2.5 parts was applied to 1.5-mil thickness and baked for 30 min. at 250°F. to a 6.7 Knoop Tukon hardness, 74 gloss value (20°C). Similar partial esters were also prepared from other I, i.e., dipentaerythritol, pentaerythritol, trimethylethane, and glycerol. A triglyceride (coconut oil) was successfully used as a II, but a short-chain II (butyric acid) gave insufficient internal plasticization. Fumaric acid and itaconic acid were successfully substituted for III.

L20 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1964:426059 CAPLUS  
 DOCUMENT NUMBER: 61:26059  
 ORIGINAL REFERENCE NO.: 61:4551b-e  
 TITLE: Di(pentaerythritol trimonocarboxylate)  
 alkylenedicarboxylate  
 INVENTOR(S): Fritz, Fred A.  
 PATENT ASSIGNEE(S): Hercules Powder Co.  
 SOURCE: 3 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3135785		19640602	US 1956-629213	19561219

PRIORITY APPLN. INFO.: US 19561219  
 GI For diagram(s), see printed CA Issue.  
 AB Plasticizers effective for vinyl resin compns., especially for polymers and copolymers of vinyl chloride, are prepared by esterification of

pentaerythritol with an alkylenedicarboxylic acid and saturated fatty acids in amts. of 50-100 parts/100 parts resin. Thus, a mixture of tech. pentaerythritol 272, adipic acid 146, and a mixture of saturated normal fatty acids (butyric 29, pentanoic 12, hexanoic 16, heptanoic 20, and octanoic 25%) 824 parts was heated with agitation at 235° for 3.5 hrs. Excess fatty acid was removed by stripping at 235° and 3 mm., cooled to 160°, treated with 50 parts lime, and agitated 20 min., cooled, filtered through diatomaceous earth to give a plasticizer (I) of acid number 0.29, 0.37% OH, saponification number 458, volume resistivity (ohm-cm.3) 3.8 + 1011. The esterification was repeated, substituting 132 parts glutaric acid for the adipic acid to give a plasticizer (II) of acid number 0.23, OH 0.33%, saponification number 457. Use of 116 g. succinic acid instead of adipic acid gave a plasticizer of acid number 0.24, OH 0.24%, saponification number 473, volume sensitivity (ohm-cm.3) 1.1 + 1012. A poly(vinyl chloride) masterbatch was prepared by mixing poly(vinyl chloride) 100, Plumb-O-Sil B (a copptd. mixture of Pb orthosilicate and SiO2 gel containing 49-50% Pb and 50-1% SiO2) 5 and dibasic Pb stearate I part. To aliquot-portions of this composition 50 parts of each of the above esters was added, with stirring, and milled at 160° for 10 min. Tests were carried out by standard methods of plasticizer evaluation. Comparative plasticizing properties are tabulated. Plasticizer, Tensile modulus at 100% elongation, lb./in.2, Maximum elongation, %, Tensile strength, lb/in.2, Hardness, Shore A2, Brittle Temperature, °C., Volatility SPI, % loss, Extraction loss, %, Soap solution, Oil; I, 2150, 320, 2760, 95.5, -11, 0.18, 1.03, 2.02; II, 2100, 330, 2780, 9, -12, 0.08, 1.04, 2.15; III, 2190, 320, 2750, 96, -10, 0.15, .89, 1.93; Pentaerythritol ester of C6 fatty acids, 1650, , , , -26, 0.56, 2.4, 5.6

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FILE 'CAPLUS' ENTERED AT 16:21:18 ON 08 JUL 2008

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L1      0 S (PREPARE OR MAKE) (L) (FATTY (3W) ACID (3W) ESTER (3W) PENTAC
L2      38 S (PENTAERYTHRITYL (5W) ESTER)
L3      0 S L2 AND PREPARE
L4      2 S L2 AND PROCESS
L5      0 S PENTAERYTHRITYL (4W) EICOSANOATE
L6      0 S PENTAERYTHRITYL (3W) HEXADECANOATE
L7      29307 S PENTAERYTHRITOL
L8      1339 S L7 AND ESTERIFICATION
L9      378 S L8 AND (FATTY (3W) ACID)
L10     17 S L9 AND (COSMETIC# OR SKIN)
L11     1320 S L8 NOT SILICONE
L12     554 S L11 AND (OIL# OR FAT#)
L13     209 S L12 AND PREPARATION
L14     1 S L13 AND MONOESTER AND DIESTER AND TRIESTER
L15     0 S L13 AND (DOCOSNOIC (2W) ACID)
L16     197 S L13 AND ACID
L17     0 S L13 AND (MELTING (2W) POINT)
L18     6 S L13 AND (OCTANOIC OR DECANOIC OR DODECANOIC OR HEPTADECANOIC
L19     29 S L12 AND (OCTANOIC OR NONANOIC OR DECANOIC OR DECECANOIC OR T
L20     23 S L19 NOT L18

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=> s 19 and (octanoic or nonanoic or decanoic or dodecanoic or tetradecanoic or hexadecanoic or heptadecanoic or octadecanoic or eicosanoic)

13510 OCTANOIC  
5166 NONANOIC  
9554 DECANOIC  
1 DECANOICS  
9554 DECANOIC  
(DECANOIC OR DECANOICS)  
9115 DODECANOIC  
12277 TETRADECANOIC  
18921 HEXADECANOIC  
5671 HEPTADECANOIC  
19380 OCTADECANOIC  
6891 EICOSANOIC

L21 26 L9 AND (OCTANOIC OR NONANOIC OR DECANOIC OR DODECANOIC OR TETRA  
DECANOIC OR HEXADECANOIC OR HEPTADECANOIC OR OCTADECANOIC OR  
EICOSANOIC)

=> s 121 not 119

L22 10 L21 NOT L19

=> s 122 and preparation

1618389 PREPARATION  
83283 PREPARATIONS  
1697136 PREPARATION  
(PREPARATION OR PREPARATIONS)  
2923365 PREPN  
214062 PREPNS  
3084371 PREPN  
(PREPN OR PREPNS)  
3970699 PREPARATION  
(PREPARATION OR PREPN)

L23 5 L22 AND PREPARATION

=> d 123 1-5 ibib abs

L23 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:246896 CAPLUS

DOCUMENT NUMBER: 130:312576

TITLE: Thermoplastic resin composition, agent for improving  
thermal aging resistance of thermoplastic resin, and  
molded articles

INVENTOR(S): Tanaka, Hiroyuki; Yasuda, Naoki; Otsuka, Katsuhiro;  
Watanabe, Ryohei

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: Eur. Pat. Appl., 52 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
EP 908491	A2	19990414	EP 1998-306863	19980827
EP 908491	A3	20000112		
EP 908491	B1	20030226		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO

JP 11080561	A	19990326	JP 1997-252805	19970902
JP 3770514	B2	20060426		
JP 11189674	A	19990713	JP 1997-367586	19971226
JP 11189673	A	19990713	JP 1997-368467	19971226
EP 1086985	A2	20010328	EP 2000-125782	19980827
EP 1086985	A3	20010620		
EP 1086985	B1	20031015		

R: DE, FR, GB, IT, SE

PRIORITY APPLN. INFO.:

JP 1997-252805	A	19970902
JP 1997-367586	A	19971226
JP 1997-368467	A	19971226
EP 1998-306863	A3	19980827

AB A title composition comprises a thermoplastic resin, e.g., polyolefin, polystyrene, polyester, polyamide or an engineering plastic, and a combination of (a)  $\geq 1$  polyglycerin derivative in which  $\geq 1$  OH group is esterified with a fatty acid, and also and antioxidant, and/or (b) an N-acyl basic amino acid and a filler, and/or (c) a dibasic acid erythritol ester and an antioxidant. The latter ester is used in an amount of  $< 1$  part per 100 parts thermoplastic resin. For example, specimens injection-molded from a highly crystalline com. ethylene-propylene copolymer containing 0.05% Irganox 1010 and 0.05% polyglycerol stearate (number-average mol. weight 764.41; OH number 547.8 mg KOH/g; acid value 0.50; preparation by esterification of polyglycerol with stearic acid given) had melt index 64 g (230°; 2.16 kg), flexural strength 390 kg/cm<sup>2</sup> and thermal aging resistance evaluated as 5 (1 worst, 5 best), vs. 50 g, 380 kg/cm<sup>2</sup> and 3 for specimens containing 0.20% Irganox 1010 and no polyglycerol ester.

L23 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:393925 CAPLUS  
DOCUMENT NUMBER: 125:60897  
ORIGINAL REFERENCE NO.: 125:11687a,11690a  
TITLE: Polyol esters of ether carboxylic acids as fiber lubricants  
INVENTOR(S): Tuller, F. Norman; Allen, Michael E.  
PATENT ASSIGNEE(S): Henkel Corporation, USA  
SOURCE: PCT Int. Appl., 26 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
WO 9606824	A1	19960307	WO 1995-US10420	19950823
W: CN, KR				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5576470	A	19961119	US 1994-297282	19940829
EP 778822	A1	19970618	EP 1995-929564	19950823
EP 778822	B1	20010620		
R: CH, DE, LI, NL				
US 5654038	A	19970805	US 1996-705441	19960829
PRIORITY APPLN. INFO.:			US 1994-297282	A 19940829

WO 1995-US10420 W 19950823

OTHER SOURCE(S): MARPAT 125:60897

AB The esters [R3Z1Z2m(CH2)nCO2CH2]pCR1qR2r [R3 = C4-22 alkyl; R1, R2 = C1-22 alkyl; Z1 = S or O; Z2 = C2H4O and/or C3H6O; m = 1-20; n = 1-6; p = 2-4; q, r = 0-2; q + p + r = 4] are useful as heat-resistant, water-dispersible lubricants for fibers. Reaction of pentaethylene glycol mono-octyl ether with ClCH2CO2Na at 50-75° in the presence of tert-BuOK gave C8H17(OCH2CH2)5OCH2CO2H, esterification of which with pentaerythritol in the presence of H3PO2 at 190-195° gave .apprx.99% tetraester with viscosity 210 cP at 25°, good dispersibility in H2O, weight loss at 365° 74.0%, fiber-metal friction (100 m/min) 45.8, and fiber-fiber friction (50 m/min) 14.9; vs. 50, insol., 75.1, 23.2, and 13.2, resp., for pentaerythritol tetracapylate.

L23 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:8284 CAPLUS

DOCUMENT NUMBER: 118:8284

ORIGINAL REFERENCE NO.: 118:1691a,1694a

TITLE: Durable hydrophilization agents for polyolefin fibers

INVENTOR(S): Hatori, Toichiro

PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04240266	A	19920827	JP 1991-20258	19910122
JP 3057521	B2	20000626		

PRIORITY APPLN. INFO.: JP 1991-20258 19910122

AB Title agents, hydrophilic with good affinity for polyolefins, comprise 100 parts [H(OR1)n]x[A[(R10)nCOR]y (A = residue of polyhydric alc. with 2-6 functionality; R = C10-24 fatty acid residue; R1 = ethylene, propylene; n = 10-50; polyoxyalkylene arranged in block or randomly; x, y = 1-5; x + y = 2-6) and 0-5 parts phenolic antioxidants. Polyolefin fibers treated with the agents show good spot absorptivity and are useful for sanitary napkins and diapers. Thus, 92 g glycerin was treated first with 1508 g propylene oxide at 120-140° and then with 176 g ethylene oxide at 150-160° in the presence of KOH and then esterified with 282 g stearic acid at 220-230° under N to give title agent. A nonwoven polypropylene fabric coated with the title agent absorbed 0.1 mL H2O in 0.8 s initially and, when tested for durability by drying the fabric in air at ambient temperature, dropping 0.1 mL H2O to the

same

spot, and repeating the procedure four times, absorbed the H2O drop in 1.0, 1.8, 2.6, and 4.2 s, resp.

L23 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:657295 CAPLUS

DOCUMENT NUMBER: 115:257295

ORIGINAL REFERENCE NO.: 115:43769a

TITLE: Esterification reactions during the preparation of pentaerythritol-based

alkyd resins  
 AUTHOR(S): Lengyel, L., Mrs.; Doszlop, Sandor  
 CORPORATE SOURCE: Muanyag Gumiip. Tansz., Budapesti Musz. Egy.,  
 Budapest, Hung.  
 SOURCE: Muanyag es Gumi (1991), 28(1-2), 40-5  
 CODEN: MUGUAO; ISSN: 0027-2914  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Hungarian  
 AB Monomer-free pentaerythritol (I)-based alkyd resins were prepared by 4-stage esterification. The linear decanoic acid produced a much faster esterification rate than the branched 2-ethylhexanoic acid (II). The orthophosphate catalyst effect was only an accelerating one. A significant amount of unreacted I was observed at all mol ratios, and the monoesters could not be separated because of forming high-esterification degree products. At the end of the 1st reaction stage, the free monomer II was observed. During the 2nd stage, phthalic anhydride (III) reacted with the leftover I, and mixed esters were formed from the reaction of III with the fatty acid esters of I. After the 2nd stage, II and phthalic acid (IV) were only observed as free monomers. During the 3rd stage, II disappeared on glycerin addition. In the 4th reaction stage, only enough III was added to produce an alkyd resin with the desired acid number. The only monomer was IV (carried in by III addition) whose amount could be kept at <1%.

L23 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2008 ACS ON STN

ACCESSION NUMBER: 1981:605485 CAPLUS

DOCUMENT NUMBER: 95:205485

ORIGINAL REFERENCE NO.: 95:34345a,34348a

TITLE: Possible applications of synthetic fatty acids in the production of synthetic resins for the lacquer industry

AUTHOR(S): Szirbek, Jozsef; Doszlop, Sandor; Gaal, Arpad; Lajtai, Mrs. Istvan

CORPORATE SOURCE: Hung.

SOURCE: Magyar Asvanyolaj- es Foldgazkiserleti Intezet

Kozlemenyei (1980), 21, 155-61

CODEN: MAFKAJ; ISSN: 0506-807X

DOCUMENT TYPE: Journal

LANGUAGE: Hungarian

AB Synthetic C9-10, C10-13, and C14-16 fatty acid fractions, produced from Russian paraffins by oxidation, were evaluated (as substitutes for 2-ethylhexanoic or decanoic acid) for esterification of pentaerythritol as a step in the manufacture of alkyd resins for alkyd-amine resin lacquers. The quality of the synthetic resins was comparable to imported products, and substantial economy was possible using these fatty acids.

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FILE 'CAPLUS' ENTERED AT 16:21:18 ON 08 JUL 2008

L1 0 S (PREPARE OR MAKE) (L) (FATTY (3W) ACID (3W) ESTER (3W) PENTAC  
 L2 38 S (PENTAERYTHRITYL (5W) ESTER)  
 L3 0 S L2 AND PREPARE  
 L4 2 S L2 AND PROCESS

L5 0 S PENTAERYTHRITYL (4W) EICOSANOATE  
 L6 0 S PENTAERYTHRITYL (3W) HEXADECANOATE  
 L7 29307 S PENTAERYTHRITOL  
 L8 1339 S L7 AND ESTERIFICATION  
 L9 378 S L8 AND (FATTY (3W) ACID)  
 L10 17 S L9 AND (COSMETIC# OR SKIN)  
 L11 1320 S L8 NOT SILICONE  
 L12 554 S L11 AND (OIL# OR FAT#)  
 L13 209 S L12 AND PREPARATION  
 L14 1 S L13 AND MONOESTER AND DIESTER AND TRIESTER  
 L15 0 S L13 AND (DOCOSNOIC (2W) ACID)  
 L16 197 S L13 AND ACID  
 L17 0 S L13 AND (MELTING (2W) POINT)  
 L18 6 S L13 AND (OCTANOIC OR DECANOIC OR DODECANOIC OR HEPTADECANOIC  
 L19 29 S L12 AND (OCTANOIC OR NONANOIC OR DECANOIC OR DODECANOIC OR T  
 L20 23 S L19 NOT L18  
 L21 26 S L9 AND (OCTANOIC OR NONANOIC OR DECANOIC OR DODECANOIC OR TE  
 L22 10 S L21 NOT L19  
 L23 5 S L22 AND PREPARATION

=> s l8 and cosmetic#  
 91083 COSMETIC#  
 L24 24 L8 AND COSMETIC#

=> s l24 not silicone  
 111879 SILICONE  
 66324 SILICONES  
 149791 SILICONE  
 (SILICONE OR SILICONES)  
 L25 19 L24 NOT SILICONE

=> s l25 and (fatty (2w) acid)  
 404815 FATTY  
 14 FATTIES  
 404819 FATTY  
 (FATTY OR FATTIES)  
 4622237 ACID  
 1639193 ACIDS  
 5136715 ACID  
 (ACID OR ACIDS)  
 358553 FATTY (2W) ACID  
 L26 12 L25 AND (FATTY (2W) ACID)

=> d l26 1-12 ibib abs

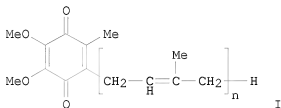
L26 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2008 ACS ON STN  
 ACCESSION NUMBER: 2007:376878 CAPLUS  
 DOCUMENT NUMBER: 146:386367  
 TITLE: Storage-stable oily cosmetic compositions  
 containing coenzyme Q  
 INVENTOR(S): Kachi, Hisanori; Matsuzawa, Makoto  
 PATENT ASSIGNEE(S): Nisshin Oillio Group, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 14pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1



## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007084505	A	20070405	JP 2005-277790	20050926
PRIORITY APPLN. INFO.:			JP 2005-277790	20050926
OTHER SOURCE(S):	MARPAT	146:386367		

GI



AB The cosmetic compns. contain coenzyme Q (I; n = 1-12), medium-chain fatty acid esters prepared by esterification of C6-12 medium-chain fatty acids with branched polyols, and do not contain H2O. An oily composition containing 0.03 weight% coenzyme Q10 and 99.97 weight% Estemol N-01 (neopentyl glycol didecanoate) showed no odor or discoloration after 1-mo storage at 50° and good skin compatibility and skin elasticity-improving and antiaging effect.

L26 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:74902 CAPLUS

DOCUMENT NUMBER: 144:156196

TITLE: High gloss, non-feathering lip product comprising a polysaccharide and a polyol ester

INVENTOR(S): Luo, Dexin; Wang, Tian Xiang; Palo, Arlette; Culhane, David Walter; Castro, Michael A.; Mercado, Clara G.; Frischberg, Paula R.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 6 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060019848	A1	20060126	US 2005-178824	20050711
AU 2005271921	A1	20060216	AU 2005-271921	20050711
CA 2573802	A1	20060216	CA 2005-2573802	20050711
WO 2006017203	A1	20060216	WO 2005-US24416	20050711

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,

NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

EP 1768642 A1 20070404 EP 2005-770892 20050711  
 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR  
 JP 2008505968 T 20080228 JP 2007-521524 20050711  
 KR 2007035073 A 20070329 KR 2007-703302 20070212

PRIORITY APPLN. INFO.:  
 US 2004-587209P P 20040712  
 WO 2005-US24416 W 20050711

AB The invention relates to a high gloss, non-feathering topical composition comprising (i) at least one water-insol., fatty alc.-soluble polysaccharide polymer selected from starches, glycogens, glycolates, dextrans, and celluloses, and (ii) a liquid polymeric polyol ester, i.e., a reaction product of the esterification of a C12-20 polyol, a C4-30 monocarboxylic acid and a C2-36 dicarboxylic acid.

L26 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:515310 CAPLUS  
 DOCUMENT NUMBER: 141:76379  
 TITLE: Lanolin-free cosmetic compositions containing an aromatic ester of a hydroxy fatty acid  
 INVENTOR(S): Filippi, Vanina; Salem, Sophie; Auguste, Frederic  
 PATENT ASSIGNEE(S): L'oreal, Fr.  
 SOURCE: Fr. Demande, 24 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2848823	A1	20040625	FR 2002-16533	20021223
FR 2848823	B1	20050506		
EP 1433458	A1	20040630	EP 2003-293094	20031210
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2004203885	A	20040722	JP 2003-425849	20031222
US 20040166130	A1	20040826	US 2003-743084	20031223
PRIORITY APPLN. INFO.:			FR 2002-16533	A 20021223
			US 2003-438772P	P 20030109

OTHER SOURCE(S): MARPAT 141:76379

AB A cosmetic makeup composition free from lanolin or its derivs. contains at least a liquid ester resulting from the esterification of an aromatic acid with a hydroxy fatty acid. This composition makes it possible to give a shining deposit on keratins. The aliphatic hydroxy compound is a hydroxy fatty acid such as ricinoleic acid or hydroxystearic acid. The composition contains a pasty compound having a hardness at 25° ranging 0.001-0.5 MPa, preferably 0.002-0.4 MPa, and whose liquid fraction at 23° lies between 9 and

97% in weight Thus, a rouge formulation contained Finsolv BCO 22, Elfacos ST9 11, 2-decyltetradecanoic acid triglyceride 20, hydrogenated polyisobutene 10, diisostearyl malate 11, polybutylene 2.5, octacosanyl stearate 5, triglyceride mixture from lauric, myristic, palmitic, and stearic acids 2, polyethylene wax 5, and modified Hectorite 3%, pigments and preservatives and perfume qs.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:859415 CAPLUS

DOCUMENT NUMBER: 139:339267

TITLE: Processes for transesterification, esterification, interesterification by dielectric heating

INVENTOR(S): Charlier De Chily, Pierre; Raynard, Mikaele

PATENT ASSIGNEE(S): Satie Sa, Fr.

SOURCE: Fr. Demande, 39 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2839069	A1	20031031	FR 2002-5396	20020425
FR 2839069	B1	20060407		
WO 2003090669	A2	20031106	WO 2003-FR1307	20030424
WO 2003090669	A3	20040401		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003262827	A1	20031110	AU 2003-262827	20030424
EP 1501783	A2	20050202	EP 2003-740664	20030424
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.:			FR 2002-5396	A 20020425
			WO 2003-FR1307	W 20030424

AB These processes not only make it possible to decrease the reaction times, compared with the traditional processes, and they also lead to esters with remarkable physicochem. characteristics: these processes make it possible to significantly reduce the acid value and the peroxide index of the mixture. This present invention consists in manufacturing by dielec. heating (microwaves and high frequencies) of polyols partially or completely esterified starting from a mixture of (A) vegetable or animal oils or fats, fatty acids, fatty acid esters, hydrocarbons or derivs. of these latter and compds. and (B) compds. containing or generating OH groups, like glycerol, polyglycerols, polyalkylene glycols polyvinyl alcs., sugars, and sterols. The heat treatment is

carried out by dielec. heating , preferably in an atmospheric deprived of oxygen.

The frequencies of the electromagnetic waves vary from 3 Mhz to 30 GHz.

The esters find multiple applications: the esters of polymeric alcs. are for example the surfactants used in cosmetics or in foods.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:673306 CAPLUS

DOCUMENT NUMBER: 135:231515

TITLE: Aqueous gelation agents containing esters of polyhydric alcohols with fatty acids

INVENTOR(S): Santou, Yoshihito; Oyama, Keiichi; Tsuchiya, Takeshi

PATENT ASSIGNEE(S): Nisshin Oil Mills Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001247843	A	20010914	JP 2000-59559	20000303

PRIORITY APPLN. INFO.: JP 2000-59559 20000303

AB This invention relates to aqueous gelation agents comprising esterification products of pentaerythritol (or its condensates), glycerin condensates, C26-30 aliphatic saturated dibasic acids, and C8-28 fatty acids. The gelation agents provide stable gels with pseudoplastic properties in acidic, basic, and alc. compns. for cosmetic, pharmaceutical, and industrial uses. For example, a mixture containing dipentaerythritol 17.8 g, decaglycerin 116 g, octacosanedioic acid 47.6 g, and stearic acid 59.3 g was reacted in the presence of p-toluenesulfonic acid for 6 h at 180-220° for esterification. The product was tested for gelation capabilities in different environments.

L26 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:673305 CAPLUS

DOCUMENT NUMBER: 135:231514

TITLE: Aqueous gelation agents containing esters of polyhydric alcohols with fatty acids

INVENTOR(S): Yamafuji, Yoshihito; Oyama, Keiichi; Tsuchiya, Takeshi

PATENT ASSIGNEE(S): Nisshin Oil Mills Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001247842	A	20010914	JP 2000-59558	20000303

PRIORITY APPLN. INFO.: JP 2000-59558 20000303

AB This invention relates to aqueous gelation agents comprising esterification products of pentaerythritol (or its condensates), glycerin condensates, C6-24 aliphatic saturated dibasic acids, and C8-28 fatty acids. The gelation agents provide stable gels with thixotropic properties in acidic, basic, and alc. compns. for cosmetic, pharmaceutical, and industrial uses. For example, a mixture containing dipentaerythritol 17.8 g, decaglycerin 116 g, eicosanedioic acid 47.6 g, and stearic acid 59.3 g was reacted in the presence of p-toluenesulfonic acid for 6 h at 180-220° for esterification. The product was tested for gelation capabilities in different environments.

L26 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2008 ACS ON STN

ACCESSION NUMBER: 1999:811554 CAPLUS  
 DOCUMENT NUMBER: 132:40345  
 TITLE: Glyceride mixtures for cosmetic emulsions  
 INVENTOR(S): Le Hen Ferrenbach, Catherine  
 PATENT ASSIGNEE(S): Henkel K.-G.a.A., Germany; Sidobre-Sinnova S.A.  
 SOURCE: Ger. Offen., 10 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19827662	A1	19991223	DE 1998-19827662	19980622
WO 9966884	A1	19991229	WO 1999-EP4065	19990612
W: JP, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1098625	A1	20010516	EP 1999-931062	19990612
R: DE, ES, FR, IT				
JP 2002518421	T	20020625	JP 2000-555570	19990612
PRIORITY APPLN. INFO.:				
			DE 1998-19827662	A 19980622
			WO 1999-EP4065	W 19990612

AB The use of di/triglyceride mixts. for the preparation of removal agents in cosmetic emulsions is described. These glycerides can be obtained by the esterification of plant oils with a mixture of glycerin and C6-10 fatty acids. Oily substances confer skin compatibility to the cosmetic formulations. Thus, a lotion contained polyglyceryl diisostearate 1.0, polyglyceryl dipolyhydroxystearate 3.0, zinc stearate 1.5, coco glycerides 20.0, EtOH 10.0, and glycerin 5.0, and water to 100%.

L26 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2008 ACS ON STN

ACCESSION NUMBER: 1998:250735 CAPLUS  
 DOCUMENT NUMBER: 128:258697  
 ORIGINAL REFERENCE NO.: 128:51193a, 51196a  
 TITLE: Highly branched complex meadowfoam esters useful as cosmetic lubricants with improved liquidity and good emollient properties to skin  
 INVENTOR(S): O'Lenick, Anthony J., Jr.  
 PATENT ASSIGNEE(S): Fan Tech Ltd., USA

SOURCE: U.S., 4 pp., Cont.-in-part of U.S. 5,646,321.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 16  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5741919	A	19980421	US 1996-773735	19961226
US 5646321	A	19970708	US 1995-516138	19950817

PRIORITY APPLN. INFO.:  
 OTHER SOURCE(S): MARPAT 128:258697  
 AB The esters are prepared by reaction of meadowfoam oil, meadowfoam fatty acid or Me meadowfoamate with polyhydroxy compds. such as pentaerythritol. Thus, 354 g meadowfoam oil was heated with 34.0 g pentaerythritol in the presence of 0.1% stannous oxylate catalyst, and water was stripped off to give a clear liquid  
 REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1996:609867 CAPLUS  
 DOCUMENT NUMBER: 125:230200  
 ORIGINAL REFERENCE NO.: 125:42865a, 42868a  
 TITLE: Preparation of esters of pentaerythritol or trimethylolpropane as an ultraviolet light absorbent Takada, Sadaki; Nakane, Toshihiko; Tsuchiya, Tsuyoshi; Nishida, Yutaka  
 INVENTOR(S): Shiseido Co., Ltd., Japan; Nisshin Oil Mills Ltd.  
 PATENT ASSIGNEE(S):  
 SOURCE: Eur. Pat. Appl., 14 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 728470	A2	19960828	EP 1996-102617	19960221
EP 728470	A3	19961204		
EP 728470	B1	20011031		
R: DE, FR, GB, IT				
JP 08225425	A	19960903	JP 1995-56500	19950221
JP 3485376	B2	20040113		
JP 08225426	A	19960903	JP 1995-56501	19950221
JP 3485377	B2	20040113		

PRIORITY APPLN. INFO.:  
 OTHER SOURCE(S): MARPAT 125:230200  
 AB An UV light absorbent comprising an ester mixture derived from esterification of pentaerythritol or trimethylolpropane and a saturated branched-chain C8-18-fatty acid and o- or p-methoxycinnamic acid in a specific ratio. The UV light absorbent with prescribed UV light absorbing power has a moderate viscosity and can be handled and worked without inconvenience and/or difficulty. Esters obtained by esterification reaction of 111.9 g

pentaerythritol, 73.2 g p-methoxycinnamic acid, and 414.9 g 2-ethylhexanoic acid had a viscosity of 302 cP and the maximum absorbance was 0.17 at  $\lambda_{\text{max}}$  of 312 nm when the UV light absorption spectrum was measured using a 10 ppm ethanol solution

L26 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:476237 CAPLUS

DOCUMENT NUMBER: 117:76237

ORIGINAL REFERENCE NO.: 117:13235a,13238a

TITLE: Preparation of methyl-branched fatty

acid pentaerythritol esters as

moisturizers and cosmetics containing them

Takada, Hiroshi; Yahagi, Kazuyuki; Tashiro, Kazuhiro

Kao K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04089450	A	19920323	JP 1990-203688	19900731
JP 2893128	B2	19990517		

PRIORITY APPLN. INFO.: JP 1990-203688 19900731

OTHER SOURCE(S): MARPAT 117:76237

AB Cosmetics contain Me(CH<sub>2</sub>)<sub>m</sub>CHMe(CH<sub>2</sub>)<sub>n</sub>CO<sub>2</sub>CH<sub>2</sub>C(CH<sub>2</sub>OH)<sub>3</sub> (m, n = 0-20; m + n = 1-21). The esters have good moisturizing activity and form thermotropic liquid crystals at room temperature and the cosmetics are stable, smoothly applied to the skin, and tackiness-free. Pentaerythritol monoisostearate (prepared from Me isostearate and pentaerythritol) 3.0, stearyltrimethylammonium chloride 2.0, and H<sub>2</sub>O 95.0% were mixed to give a hair rinse.

L26 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:39512 CAPLUS

DOCUMENT NUMBER: 104:39512

ORIGINAL REFERENCE NO.: 104:6383a,6386a

TITLE: Composition useful in cosmetics and toiletries containing partial esters of tripentaerythritol

INVENTOR(S): Nadolsky, Richard J.; Laryea, Joseph M.

PATENT ASSIGNEE(S): Miranol Chemical Co., Inc., USA

SOURCE: Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 151992	A2	19850821	EP 1985-100769	19850125
EP 151992	A3	19860716		
R: BE, CH, DE, FR, GB, IT, LI, NL, SE				
JP 60178804	A	19850912	JP 1985-16358	19850130

PRIORITY APPLN. INFO.: US 1984-574927 A 19840130  
 OTHER SOURCE(S): MARPAT 104:39512  
 AB Partial esters of tripentaerythritol [78-24-0] with C12-20 fatty acids are readily absorbed by the skin and provide a long-lasting emollient effect. Thus, to a blend of lauric/myristic acid in xylene, tripentaerythritol was added in a mole ratio of 4:1 to obtain a soft solid product. A hand lotion containing 5.0% by weight of the above ester gave a persisting silky nongreasy feeling.

L26 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1978:122216 CAPLUS  
 DOCUMENT NUMBER: 88:122216  
 ORIGINAL REFERENCE NO.: 88:19205a,19208a  
 TITLE: Pentaerythritol derivatives  
 INVENTOR(S): Akimoto, Shinichi; Fujii, Masahiko; Suganaka, Akinori  
 PATENT ASSIGNEE(S): Nippon Oils & Fats Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 52151111	A	19771215	JP 1976-66097	19760608
JP 53018010	B	19780613		

PRIORITY APPLN. INFO.: JP 1976-66097 A 19760608  
 AB Pentaerythritol (I) derivs. were prepared by addition of 40-150 mol propylene oxide (II) and 4-60 mol ethylene oxide (III) to (HOCH<sub>2</sub>)<sub>3</sub>CCH<sub>2</sub>O[CH<sub>2</sub>C(CH<sub>2</sub>OH)CH<sub>2</sub>O]<sub>n</sub>H (n = 0 or 1) in the presence of alkali catalysts at 100-180° followed by esterification of the terminal OH groups. The products were polyether fatty acid esters useful as lubricants, and antifoaming agents, and in cosmetics. Thus, 200 g II was added to a mixture of 68 g I and 10 g KOH over 5 h at 100° and 1-7 kg/cm<sup>2</sup>, the whole autoclaved 1 h, 440 g III added over 1 h, the whole autoclaved 1 h, neutralized with H<sub>3</sub>PO<sub>4</sub>, 10 g 4-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H and 210 g stearic acid were added, and the whole was esterified 12 h at 110-50° and 80 mm to give a product (IV) [9003-11-6] (OH value 26.1, saponification value 15.0, viscosity 380.7 cSt at 37.78°, acid value 0.7, APHA 40). IR and NMR spectra of the product are presented.

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FILE 'CAPLUS' ENTERED AT 16:21:18 ON 08 JUL 2008

L1 0 S (PREPARE OR MAKE) (L) (FATTY (3W) ACID (3W) ESTER (3W) PENTAC  
 L2 38 S (PENTAERYTHRITYL (5W) ESTER)  
 L3 0 S L2 AND PREPARE  
 L4 2 S L2 AND PROCESS  
 L5 0 S PENTAERYTHRITYL (4W) EICOSANOATE  
 L6 0 S PENTAERYTHRITYL (3W) HEXADECANOATE  
 L7 29307 S PENTAERYTHRITOL  
 L8 1339 S L7 AND ESTERIFICATION



L9 378 S L8 AND (FATTY (3W) ACID)  
 L10 17 S L9 AND (COSMETIC# OR SKIN)  
 L11 1320 S L8 NOT SILICONE  
 L12 554 S L11 AND (OIL# OR FAT#)  
 L13 209 S L12 AND PREPARATION  
 L14 1 S L13 AND MONOESTER AND DIESTER AND TRIESTER  
 L15 0 S L13 AND (DOCOSNOIC (2W) ACID)  
 L16 197 S L13 AND ACID  
 L17 0 S L13 AND (MELTING (2W) POINT)  
 L18 6 S L13 AND (OCTANOIC OR DECANOIC OR DODECANOIC OR HEPTADECANOIC  
 L19 29 S L12 AND (OCTANOIC OR NONANOIC OR DECANOIC OR DODECANOIC OR T  
 L20 23 S L19 NOT L18  
 L21 26 S L9 AND (OCTANOIC OR NONANOIC OR DECANOIC OR DODECANOIC OR TE  
 L22 10 S L21 NOT L19  
 L23 5 S L22 AND PREPARATION  
 L24 24 S L8 AND COSMETIC#  
 L25 19 S L24 NOT SILICONE  
 L26 12 S L25 AND (FATTY (2W) ACID)

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ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF  
 LOGOFF? (Y)/N/HOLD:y  
 STN INTERNATIONAL LOGOFF AT 17:13:44 ON 08 JUL 2008